DSC-T100

SERVICE MANUAL

LEVEL 2

Ver. 1.0 2007.02
Revision History

How to use
Acrobat Reader

Internal memory
ON BOARD

Photo: Silver

US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Hong Kong Model
Chinese Model
Korea Model
Brazilian Model
Japanese Model
Tourist Model

Link

SPECIFICATIONS	BLOCK DIAGRAMS	PRINTED WIRING BOARDS
SERVICE NOTE	FRAME SCHEMATIC DIAGRAM	REPAIR PARTS LIST
DISASSEMBLY	SCHEMATIC DIAGRAMS	

- Precaution on Replacing the SY-171 Board

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

DIGITAL STILL CAMERA

SONY®

DSC-T100_L2
9-852-191-31

Sony EMCS Co.

2007B0500-1

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Published by Kohda TEC

Self Diagnosis Supported model Cyber-shot MEMORY STICK ™ LITHIUM ION G TYPE

SPECIFICATIONS

Camera

[System]

Image device: 7.18 mm (1/2.5 type) color CCD, Primary color filter
Total pixel number of camera: Approx. 8 286 000 pixels
Effective pixel number of camera: Approx. 8 083 000 pixels
Lens: Carl Zeiss Vario-Tessar 5 × zoom lens f = 5.8 – 29.0 mm (35 – 175mm when converted to a 35 mm still camera) F3.5 – 4.4
Exposure control: Automatic exposure, Scene Selection (9 modes)
White balance: Automatic, Daylight, Cloudy, Fluorescent 1, Fluorescent 2, Fluorescent 3, Incandescent, Flash
File format (DCF compliant):
Still images: Exif Ver. 2.21 JPEG compliant, DPOF compatible
Movies: MPEG1 compliant (Monaural)
Recording media: Internal Memory (approx. 31 MB), "Memory Stick Duo"
Flash: Flash range (ISO (Recommended Exposure Index) set to Auto): approx. 0.1 to 3.7 m (4 inches to 12 feet 1 3/4 inches) (W)/ approx. 0.8 to 2.9 m (2 feet 7 1/2 inches to 9 feet 6 1/4 inches) (T)

[Input and Output connectors]

Multi connector:
Video output
Audio output (mono)
USB communication
USB communication:
Hi-Speed USB (USB 2.0 compliant)

[LCD screen]

LCD panel: 7.5 cm (3.0 type) TFT drive
Total number of dots: 230 400 (960 × 240) dots

[Power, general]

Power:
Rechargeable battery pack NP-BG1, 3.6 V
AC-LS5K AC Adaptor (not supplied), 4.2 V
Power consumption (during shooting): 1.1 W
Operating temperature: 0 to 40°C (32 to 104°F)
Storage temperature: –20 to +60°C (–4 to +140°F)
Dimensions: 91.85 × 9.2 × 22.3mm (3 5/8 × 2 3/8 × 29/32inches) (W/H/D, excluding protrusions)
Mass: Approx. 172 g (6.1 oz) (including NP-BG1 battery pack and wrist strap, etc.)
Microphone: Monaural
Speaker: Monaural
Exif Print: Compatible
PRINT Image Matching III: Compatible
PictBridge: Compatible

BC-CSG/BC-CSGB/BC-CSGC battery charger

Power requirements: AC 100 to 240 V, 50/60 Hz, 2 W (BC-CSG/BC-CSGC)/ 2.6 W (BC-CSGB)
Output voltage: DC 4.2 V, 0.25 A
Operating temperature: 0 to 40°C (32 to 104°F)
Storage temperature: -20 to +60°C (–4 to +140°F)
Dimensions: Approx. 62 × 24 × 91mm (2 1/2 × 31/32 × 3 5/8 inches) (W/H/D)
Mass: Approx. 75 g (2.7 oz)

Rechargeable battery pack NP-BG1

Used battery: Lithium-ion battery
Maximum voltage: DC 4.2 V
Nominal voltage: DC 3.6 V
Capacity: 3.4 Wh (960 mAh)

Design and specifications are subject to change without notice.

CAUTION
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈSES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPÉMENTS PUBLIÉS PAR SONY.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer.

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, through functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
5. Check the B+ voltage to see it is at the values specified.
6. FLEXIBLE Circuit Board Repairing
   - Keep the temperature of the soldering iron around 270°C during repairing.
   - Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
   - Be careful not to apply force on the conductor when soldering or unsoldering.

Unleaded solder

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size.)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40°C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350°C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

TABLE OF CONTENTS

Section *Title* *Page*

1. SERVICE NOTE

1-1. Precaution on Replacing the SY-171 Board ····· 1-1
1-2. Self-diagnosis Function ····· 1-1
1-3. Process After Fixing Flash Error ····· 1-2
1-4. Method for Copying or Erasing the Data in Internal Memory ····· 1-3
1-5. How to Write Data to Internal Memory ····· 1-4

2. DISASSEMBLY

2-1. Disassembly ····· 2-2

3. BLOCK DIAGRAMS

3-1. Overall Block Diagram (1/2) ····· 3-1
3-2. Overall Block Diagram (2/2) ····· 3-2
3-3. Power Block Diagram (1/2) ····· 3-3
3-4. Power Block Diagram (2/2) ····· 3-4

4. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

4-1. Frame Schematic Diagram ····· 4-1
4-2. Schematic Diagrams ····· 4-3
4-3. Printed Wiring Boards ····· 4-19

5. REPAIR PARTS LIST

5-1. Exploded Views ····· 5-2
5-2. Electrical Parts List ····· 5-5

1. SERVICE NOTE

1-1. PRECAUTION ON REPLACING THE SY-171 BOARD

DESTINATION DATA

When you replace to the repairing board, the written destination data of repairing board also might be changed to original setting.
Refer to Service Manual ADJ, and perform “DESTINATION DATA WRITE”.

USB SERIAL No.

The set is shipped with a unique ID (USB Serial No.) written in it.
This ID has not been written in a new board for service, and therefore it must be entered after the board replacement.
Refer to Service Manual ADJ, and perform “USB SERIAL No. INPUT”.

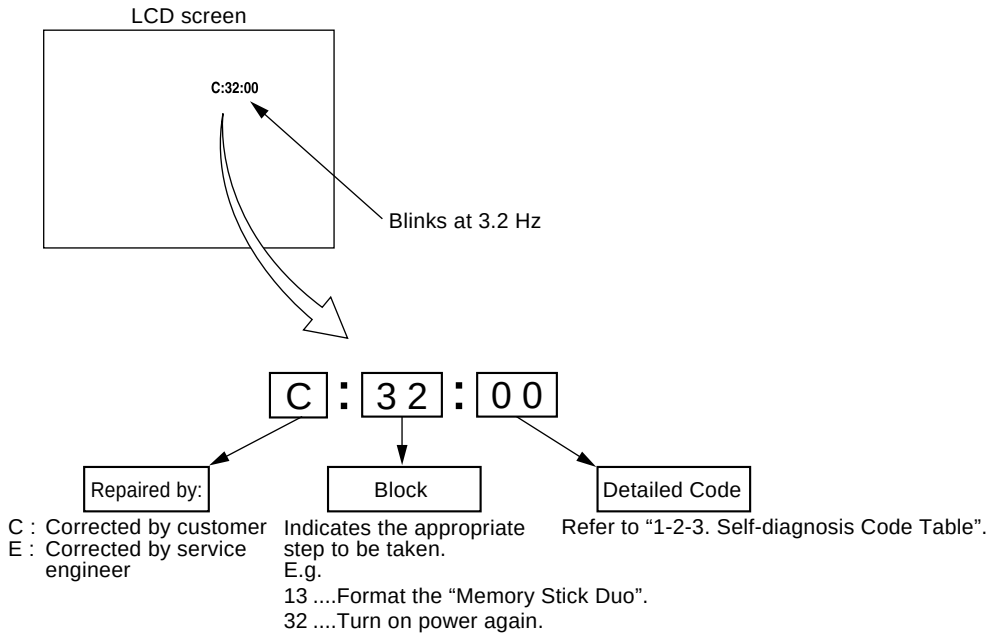
1-2. SELF-DIAGNOSIS FUNCTION

1-2-1. Self-diagnosis Function

When problems occur while the unit is operating, the self-diagnosis function starts working, and displays on the LCD screen what to do.
Details of the self-diagnosis functions are provided in the Instruction manual.

1-2-2. Self-diagnosis Display

When problems occur while the unit is operating, the LCD screen shows a 4-digit display consisting of an alphabet and numbers, which blinks at 3.2 Hz. This 5-character display indicates the “repaired by:”, “block” in which the problem occurred, and “detailed code” of the problem.



1-2-3. Self-diagnosis Code Table

Self-diagnosis Code					Symptom/State	Correction
Repaired by:	Block Function		Detailed Code			
C	1	3	0	1	The internal memory has experienced a format error.	Format the internal memory.
					"Memory Stick Duo" is unformatted.	Format the "Memory Stick Duo".
					"Memory Stick Duo" is broken.	Insert a new "Memory Stick Duo".
					"Memory Stick Duo" type error	Insert a supported "Memory Stick Duo".
					The camera cannot read or write data on the "Memory Stick Duo".	Turn the power off and on again, or taking out and inserting the "Memory Stick Duo" several times.
C	3	2	0	1	Trouble with hardware	Turn the power off and on again.
E	6	1	0	0	Difficult to adjust focus (Cannot initialize focus)	Retry turn the power on by the power switch. If it does not recover, check the focus reset sensor of lens block (pin ⑥ of CN402 on the SY-171 board). If it is OK, check the focus motor drive IC (IC401 on the SY-171 board).
E	6	1	1	0	Zoom operations fault (Cannot initialize zoom lens.)	Retry turn the power on by the power switch. Check the zoom reset sensor of lens block (pin ⑨ of CN402 on the SY-171 board) when zooming is performed when the zoom button is operated. If it is OK, check the zoom motor drive IC (IC401 on the SY-171 board).
E	6	2	0	2	Abnormality of IC for steadyshot.	Check or replacement of the IC for steadyshot (IC503 on the SY-171 board).
E	6	2	1	0	Lens initializing failure.	Check or replacement of the IC for steadyshot (IC503 on the SY-171 board).
E	6	2	1	1	Lens overheating (PITCH).	Check the HALL element (PITCH) of optical image stabilizer (pin ㉛, ㉜ of CN402 on the SY-171 board). If it is OK, check PITCH angular velocity sensor (SE502 on the SY-171 board) peripheral circuits.
E	6	2	1	2	Lens overheating (YAW).	Check the HALL element (YAW) of optical image stabilizer (pin ㉝, ㉞ of CN402 on the SY-171 board). If it is OK, check YAW angular velocity sensor (SE501 on the SY-171 board) peripheral circuits.
E	6	2	2	0	Abnormality of thermistor.	Check the OIS temp sensor of optical image stabilizer (pin ㉑ of CN402 on the SY-171 board).
E	9	1	0	1	Abnormality when flash is being charged.	Checking of flash unit or replacement of flash unit. (Note)
E	9	2	0	0	Non-standard battery is used.	Use the compatible battery only.

Note: After repair, be sure to perform "1-3. PROCESS AFTER FIXING FLASH ERROR".

1-3. PROCESS AFTER FIXING FLASH ERROR

When "FLASH error" (Self-diagnosis Code E : 91 : 01) occurs, to prevent any abnormal situation caused by high voltage, setting of the flash is changed automatically to disabling charge and flash setting.
After fixing, this setting needs to be deactivated. Flash error code can be initialized by the operations on the HOME screen.

Method for Initializing the Flash Error Code

Initialize

Initializes the setting to the default setting. The images stored in the internal memory are retained.

① Select [Initialize] with ▲/▼/◄/►, then press ●.
The message "Initialize all settings" appears.

② Select [OK] with ▲, then press ●.
The settings are reset to the default setting.

To cancel the resetting

Select [Cancel] in step ②, then press ●.

• Make sure that the power is not disconnected during resetting.

1-4. METHOD FOR COPYING OR ERASING THE DATA IN INTERNAL MEMORY

The data can be copied/erased by the operations on the HOME screen. (When erasing the data, execute formatting the internal memory.)

Note 1: When replacing the SY-171 board, erase the data in internal memory of the board before replacement.
Note 2: When replacing the SY-171 board, execute formatting and initialize the internal memory after replacement.

Method for Copying the Data in Internal Memory

Copy

Copies all images in the internal memory to a "Memory Stick Duo".

① Insert a "Memory Stick Duo" having 32MB or larger capacity.

② Select [Copy] with ▲/▼/◄/► on the control button, then press ●.
The message "All data in internal memory will be copied" appears.

③ Select [OK] with ▲, then press ●.
Copying starts.

To cancel the copying

Select [Cancel] in step ③, then press ●.

- Use a fully charged battery pack. If you attempt to copy image files using a battery pack with little remaining charge, the battery pack may run out, causing copying to fail or possibly corrupting the data.
- You cannot copy individual images.
- The original images in the internal memory are retained even after copying. To delete the contents of the internal memory, remove the "Memory Stick Duo" after copying, then execute the [Format] command in [Internal Memory Tool].
- When you copy the data in the internal memory to the "Memory Stick Duo", all the data will be copied. You cannot choose a specific folder on the "Memory Stick Duo" as the destination for the data to be copied.
- Even if you copy data, a DPOF (Print order) mark is not copied.

Method for Formatting the Internal Memory

This item does not appear when a "Memory Stick Duo" is inserted in the camera.

Format

Formats the internal memory.

- Note that formatting irrevocably erases all data in the internal memory, including even protected images.

① Select [Format] with ▲/▼/◄/► on the control button, then press ●.
The message "All data in internal memory will be erased" appears.

② Select [OK] with ▲, then press ●.
The format is complete.

To cancel the formatting

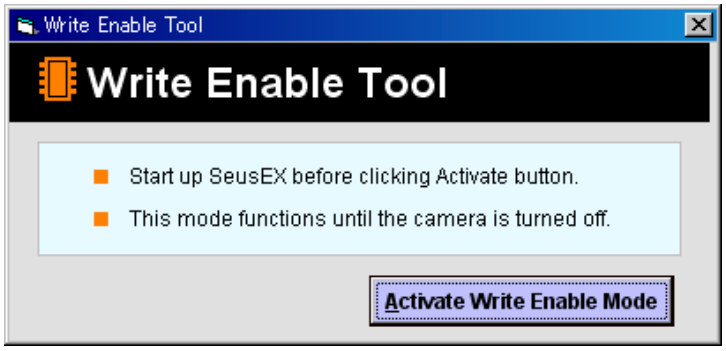
Select [Cancel] in step ②, then press ●.

1-5. HOW TO WRITE DATA TO INTERNAL MEMORY

Usually, the camera has been set so as to disable the data writing from the PC to the internal memory of the camera.
This setting must be changed temporarily when the data is to be written to the internal memory such as a case after the board replacement.
To change the setting, use the write enable tool “WriteEnableTool.exe”.

Data writing method

1) Connect the PC to the camera (USB mode: Mass Storage), and switch the driver to the “Sony Seus USB Driver”.
2) Start the Write Enable Tool and the SeusEX.
3) Click the [Activate Write Enable Mode] button of the Write Enable Tool.


Write Enable Tool
Write Enable Tool
Start up SeusEX before clicking Activate button.
This mode functions until the camera is turned off.
Activate Write Enable Mode

4) Upon completion of the setting change, the following message will be displayed.

5) Return the driver to the original one, and connect the PC to the camera (USB mode: Mass Storage).
6) Write the data read out into the PC to the internal memory of the camera.
7) Disconnect the PC from the camera, and turn off the camera.

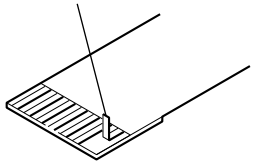
Note: By turning off the camera, the write enable setting is reset.

2. DISASSEMBLY

NOTE FOR REPAIR

- Make sure that the flat cable and flexible board are not cracked of bent at the terminal. Do not insert the cable insufficiently nor crookedly.
- When remove a connector, don't pull at wire of connector. It is possible that a wire is snapped.
- When installing a connector, don't press down at wire of connector. It is possible that a wire is snapped.
- Do not apply excessive load to the gilded flexible board.

Cut and remove the part of gilt which comes off at the point. (Be careful or some pieces of gilt may be left inside)

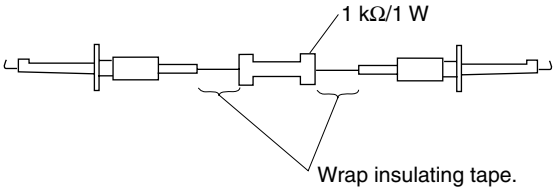


DISCHARGING OF THE ST-162 FLEXIBLE BOARD'S CHARGING CAPACITOR (C901)

The charging capacitor (C901) of the ST-162 flexible board is charged up to the maximum 300 V potential.
There is a danger of electric shock by this high voltage when the capacitor is handled by hand. The electric shock is caused by the charged voltage which is kept without discharging when the main power of the unit is simply turned off. Therefore, the remaining voltage must be discharged as described below.

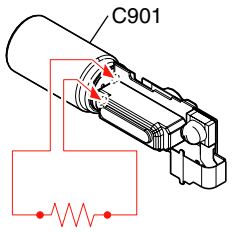
Preparing the Short Jig

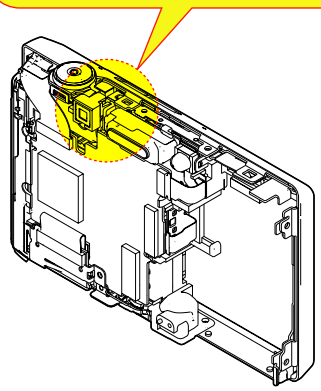
To preparing the short jig, a small clip is attached to each end of a resistor of 1 kΩ /1 W (1-215-869-11).
Wrap insulating tape fully around the leads of the resistor to prevent electrical shock.



Note: High-voltage cautions

Discharging the Capacitor
Short-circuit between the two points with the short jig about 10 seconds.





2-1. DISASSEMBLY

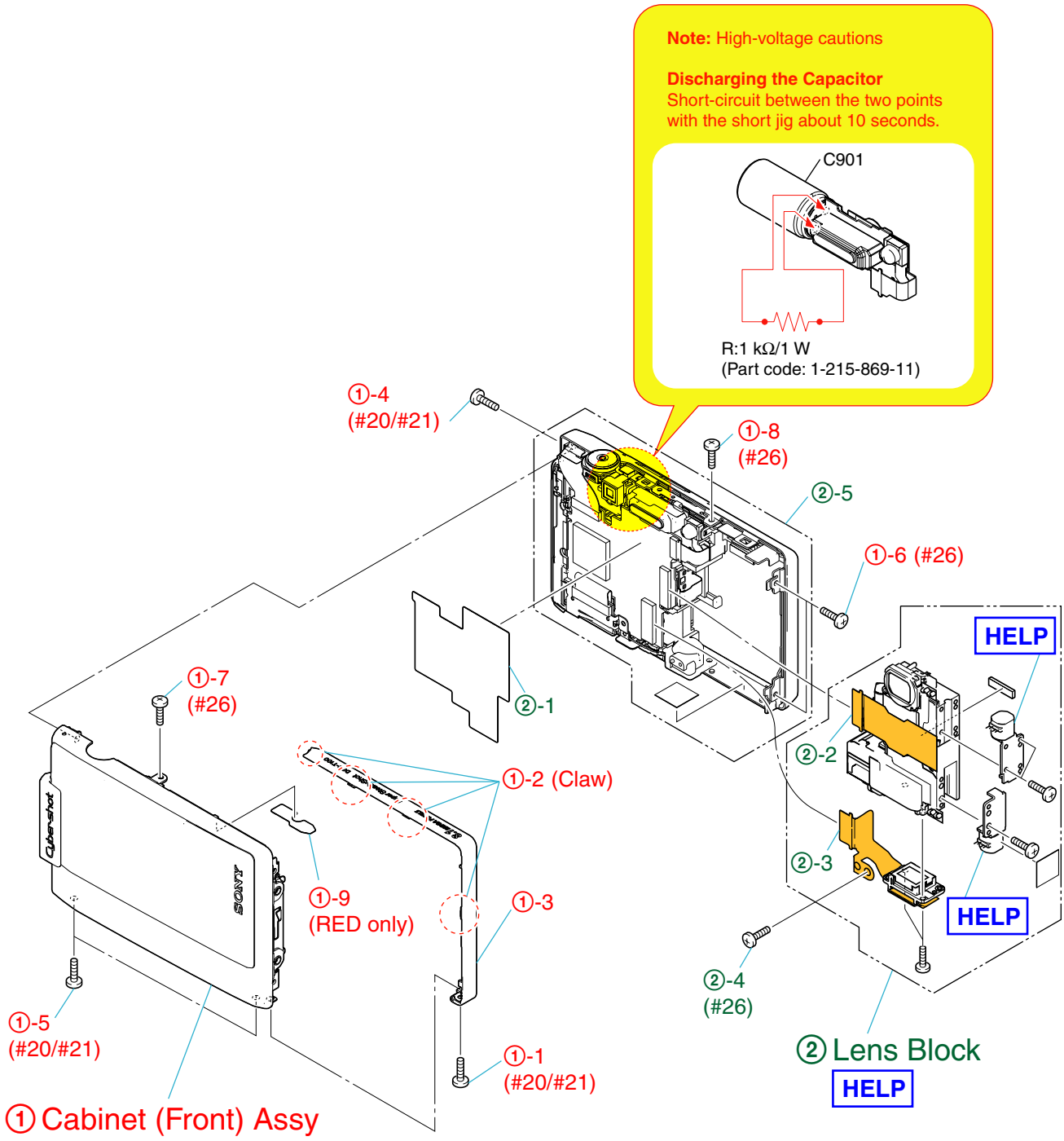
EXPLODED VIEW HARDWARE LIST

2-1-1. FRONT CABINET/LENS SECTION

Follow the disassembly in the numerical order given.

① Cabinet (Front) Assy (①-1 to ①-9)

② Lens Block (②-1 to ②-5)

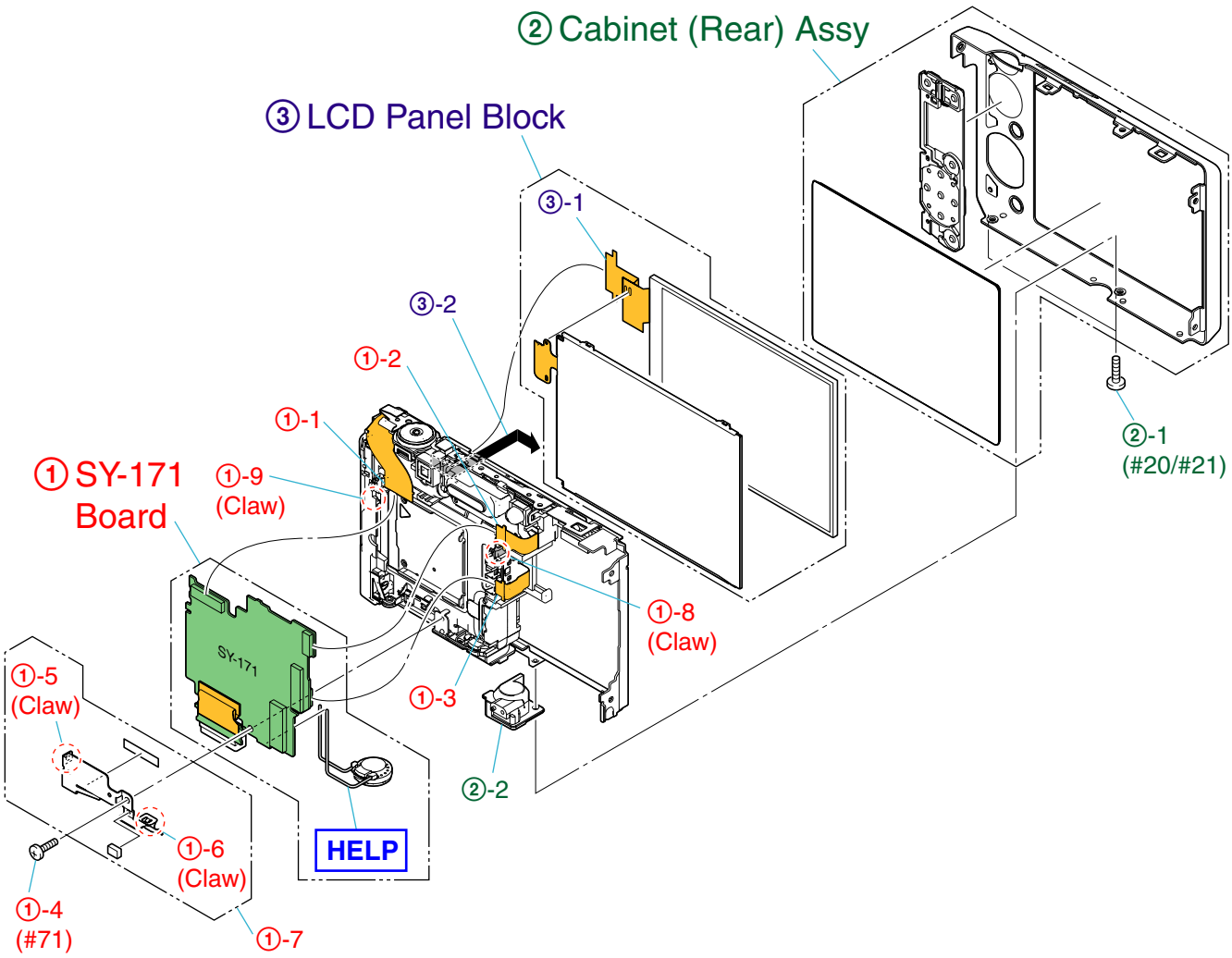


2-1-2. LCD/MAIN BOARD SECTION

Follow the disassembly in the numerical order given.

① SY-171 Board (①-1 to ①-9)
② Cabinet (Rear) Assy (②-1 to ②-2)
③ LCD Panel Block (③-1 to ③-2)

EXPLODED VIEW HARDWARE LIST

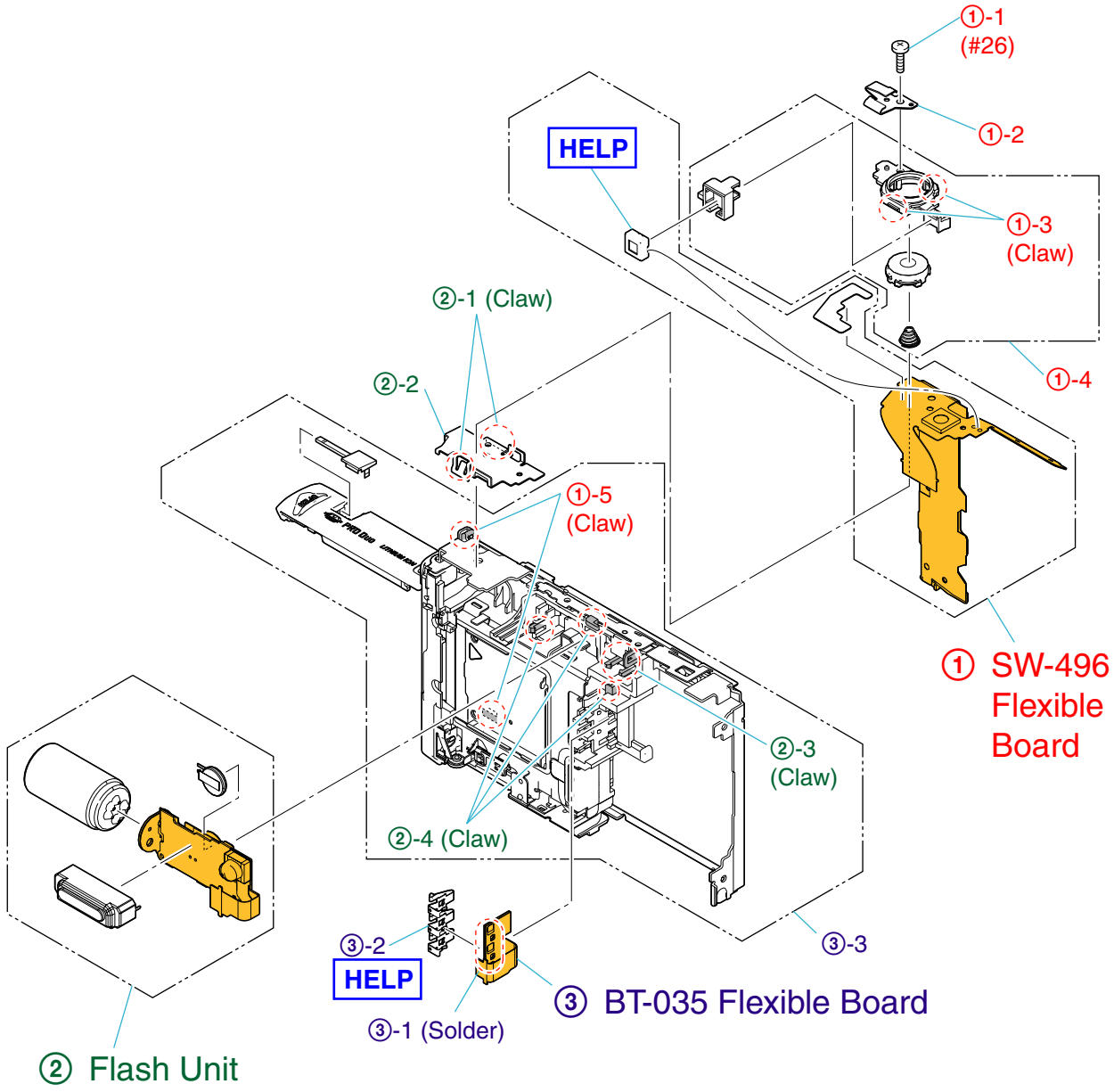


2-1-3. BT HOLDER SECTION

Follow the disassembly in the numerical order given.

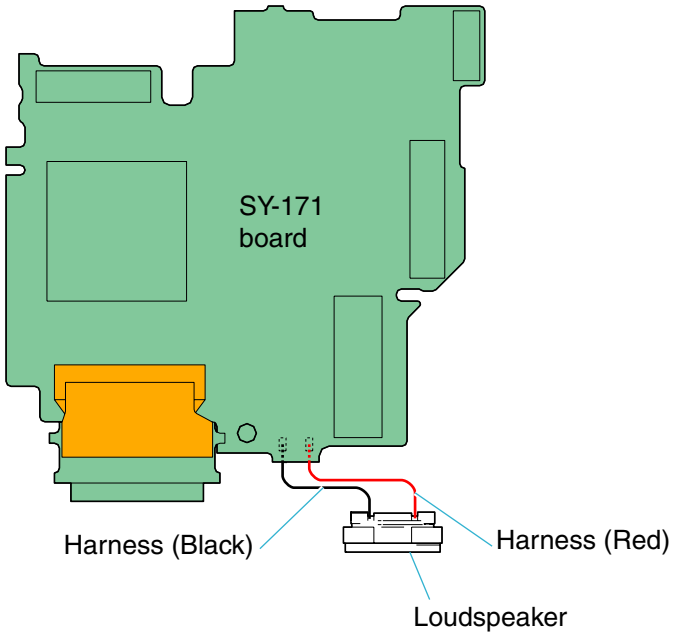
① SW-496 Flexible Board (①-1 to ①-5)
② Flash Unit (②-1 to ②-4)
③ BT-035 Flexible Board (③-1 to ③-3)

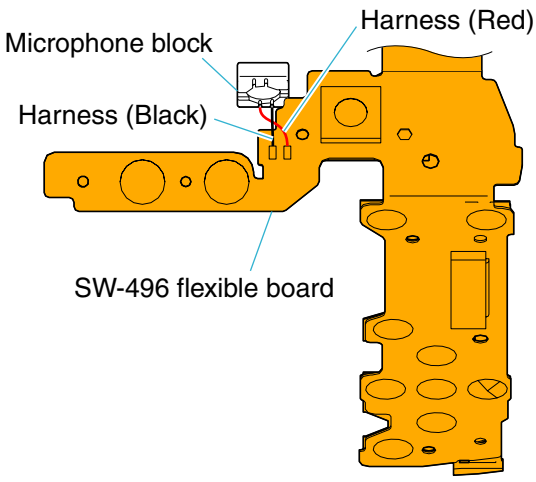
EXPLODED VIEW HARDWARE LIST



HELP

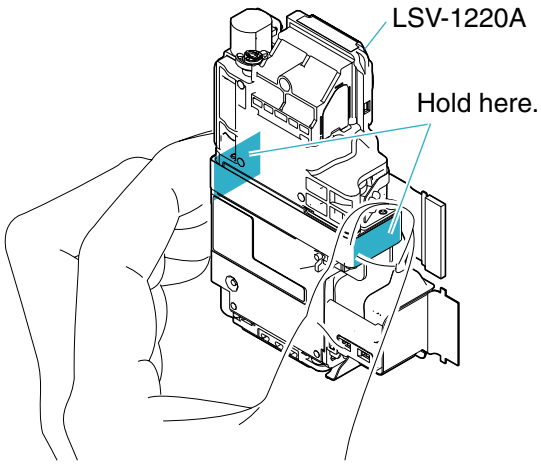
Sheet attachment positions and procedures of processing the flexible boards/harnesses are shown.





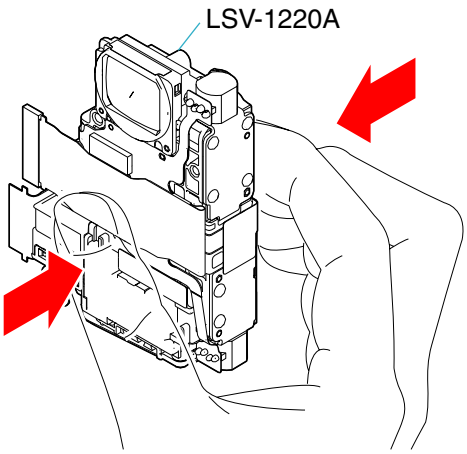
PRECAUTIONS WHEN HOLDING THE LSV-1220A

- **Hold the LSV-1220A at the center of both sides.**



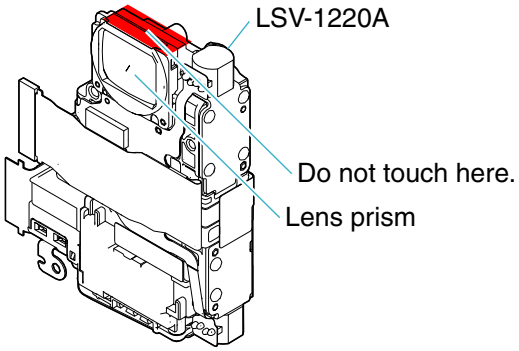
○

- **Do not hold the LSV-1220A in the front-rear thickness direction.**

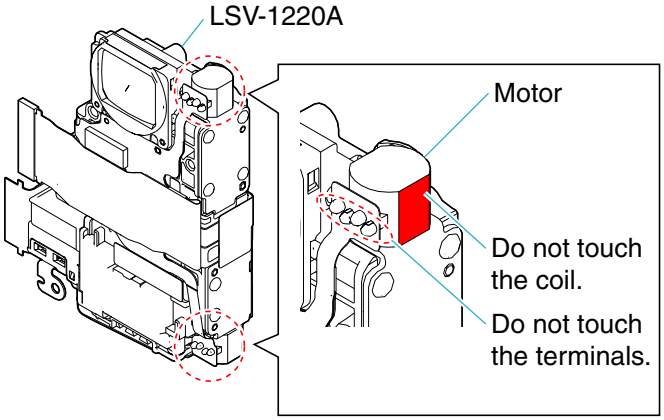


×

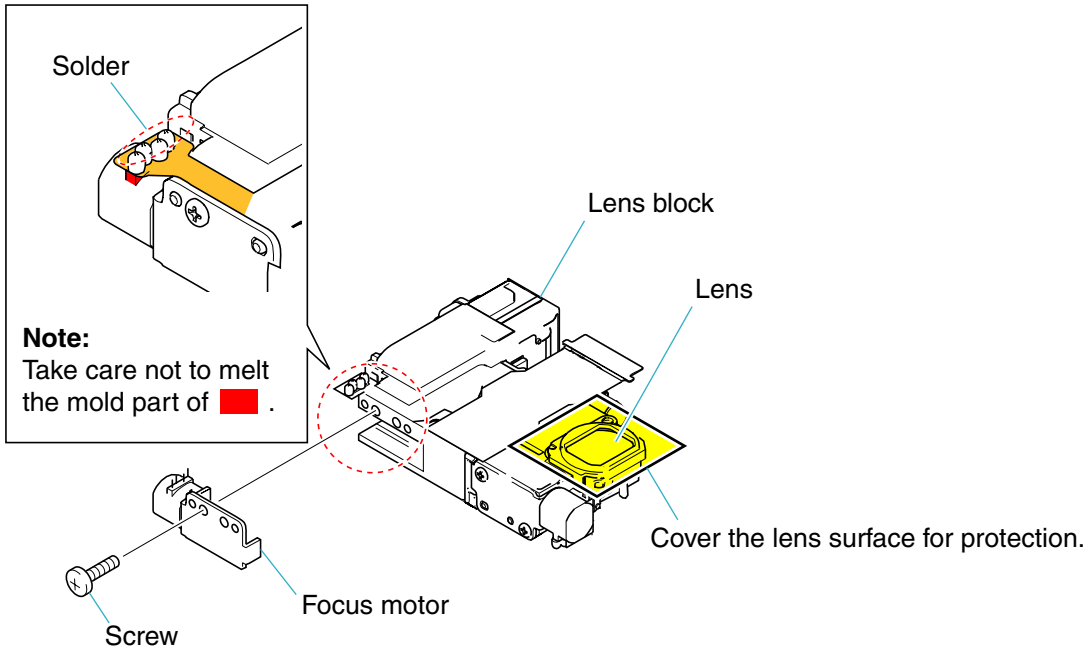
- **Do not touch the top of lens prism.**



- **Do not touch the motor coil or terminals.**

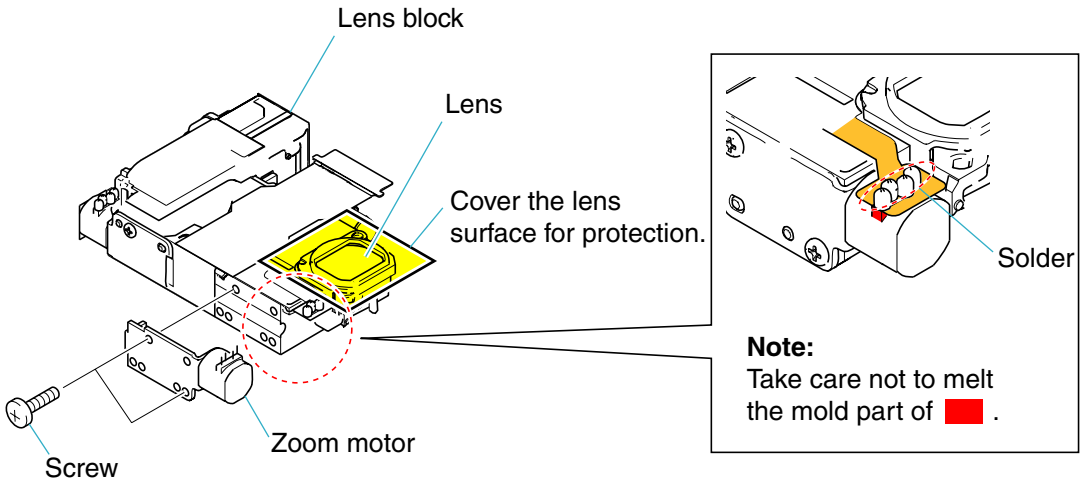


FOCUS MOTOR DISASSEMBLING PROCEDURE



① Cover the lens surface to protect from solder splashing.
② Remove the solder.
③ Remove one screw.
＊Tightening torque = 0.5 ± 0.1kgf • cm
④ Remove the focus motor from the lens block.

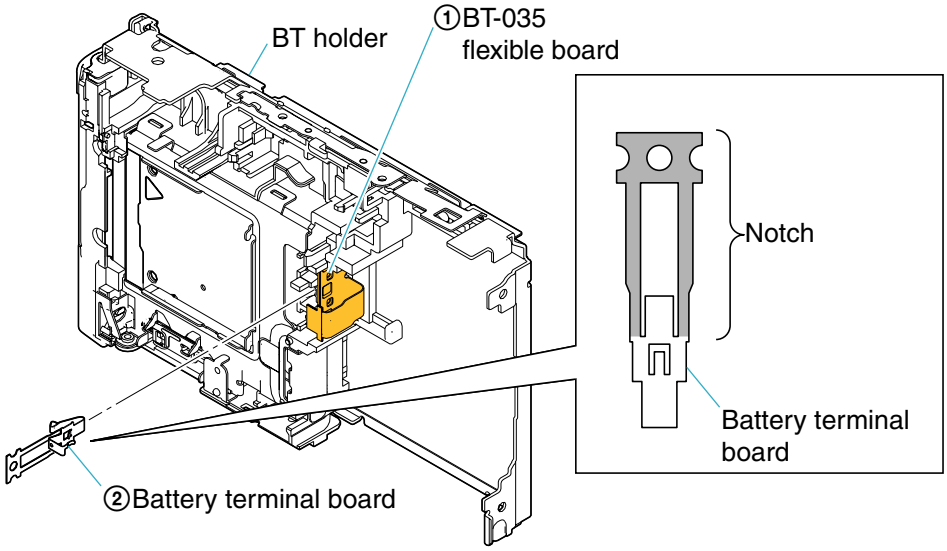
ZOOM MOTOR DISASSEMBLING PROCEDURE



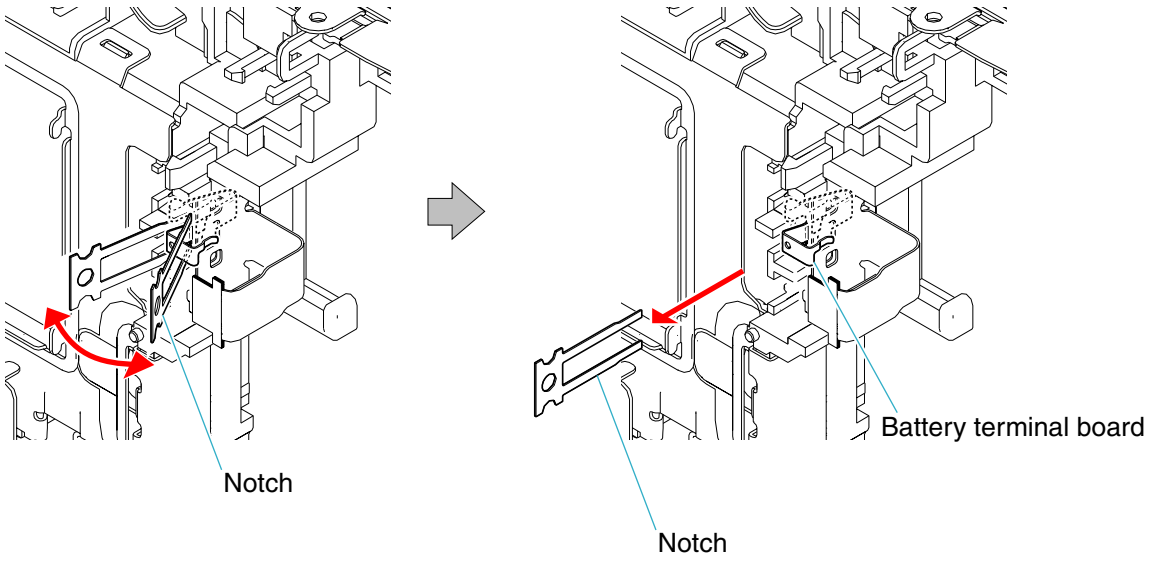
① Cover the lens surface to protect from solder splashing.
② Remove the solder.
③ Remove two screws.
＊Tightening torque = 0.5 ± 0.1kgf • cm
④ Remove the zoom motor from the lens block.

INSTALLATION METHOD OF BATTERY TERMINAL BOARD

① Install the BT-035 flexible board in the BT holder.
② Insert the battery terminal board into a slit in the BT holder to install.
*The battery terminal board is attached with the notch for installation.



③ Fold the notch 3 or 4 times repeatedly to break.



3. BLOCK DIAGRAMS

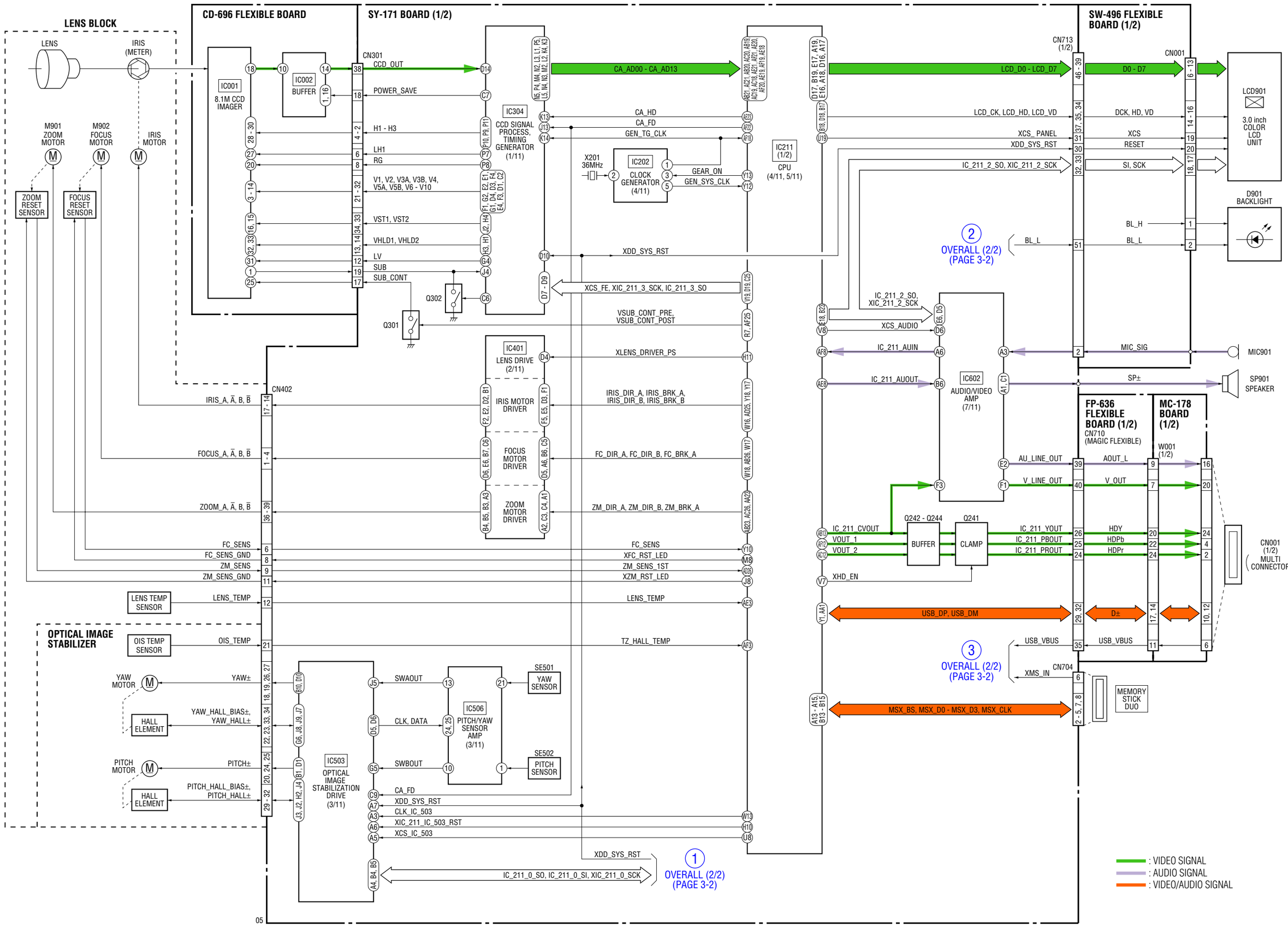
Link

OVERALL BLOCK DIAGRAM (1/2)	POWER BLOCK DIAGRAM (1/2)
OVERALL BLOCK DIAGRAM (2/2)	POWER BLOCK DIAGRAM (2/2)

3. BLOCK DIAGRAMS

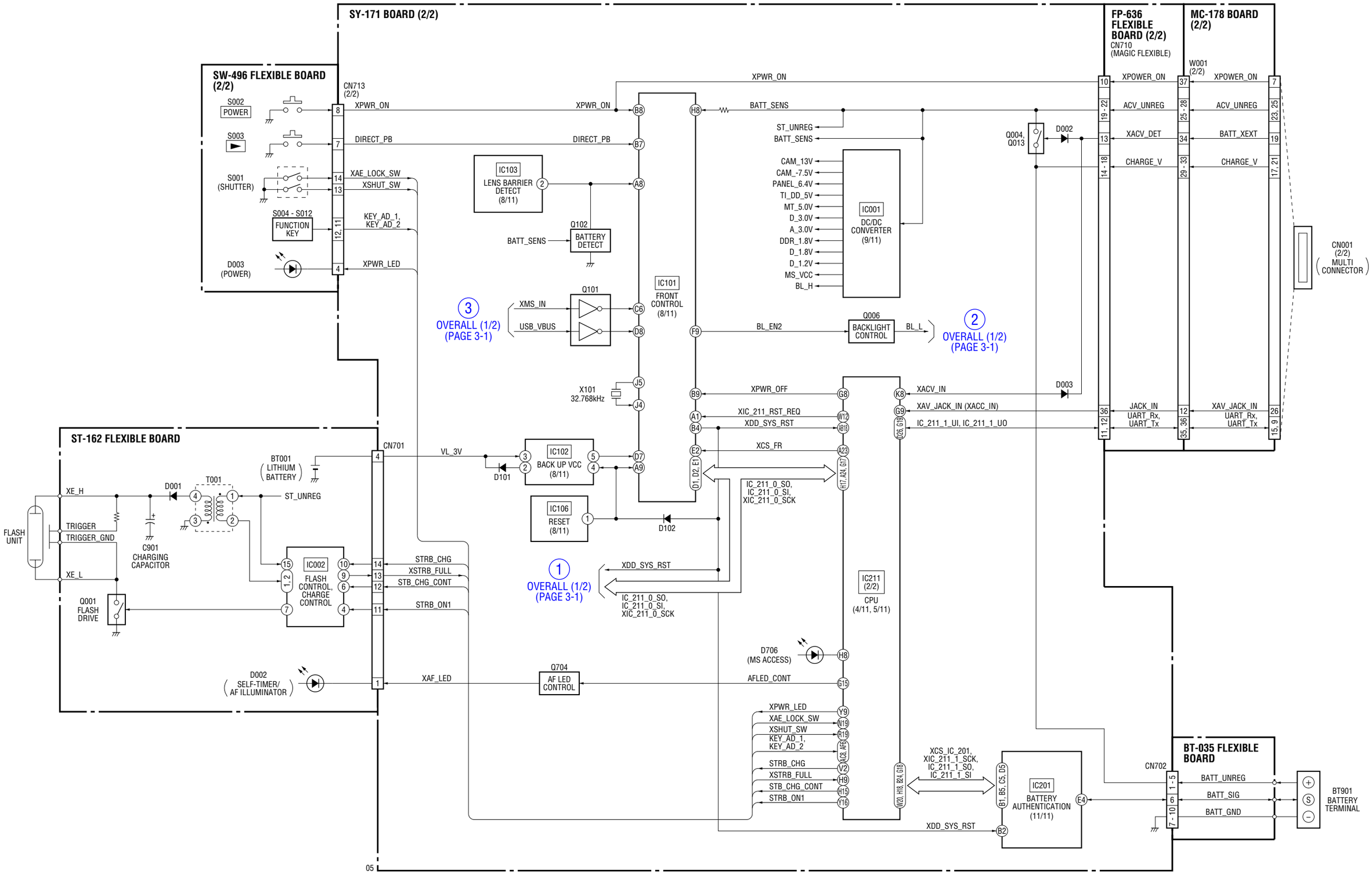
3-1. OVERALL BLOCK DIAGRAM (1/2)

( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



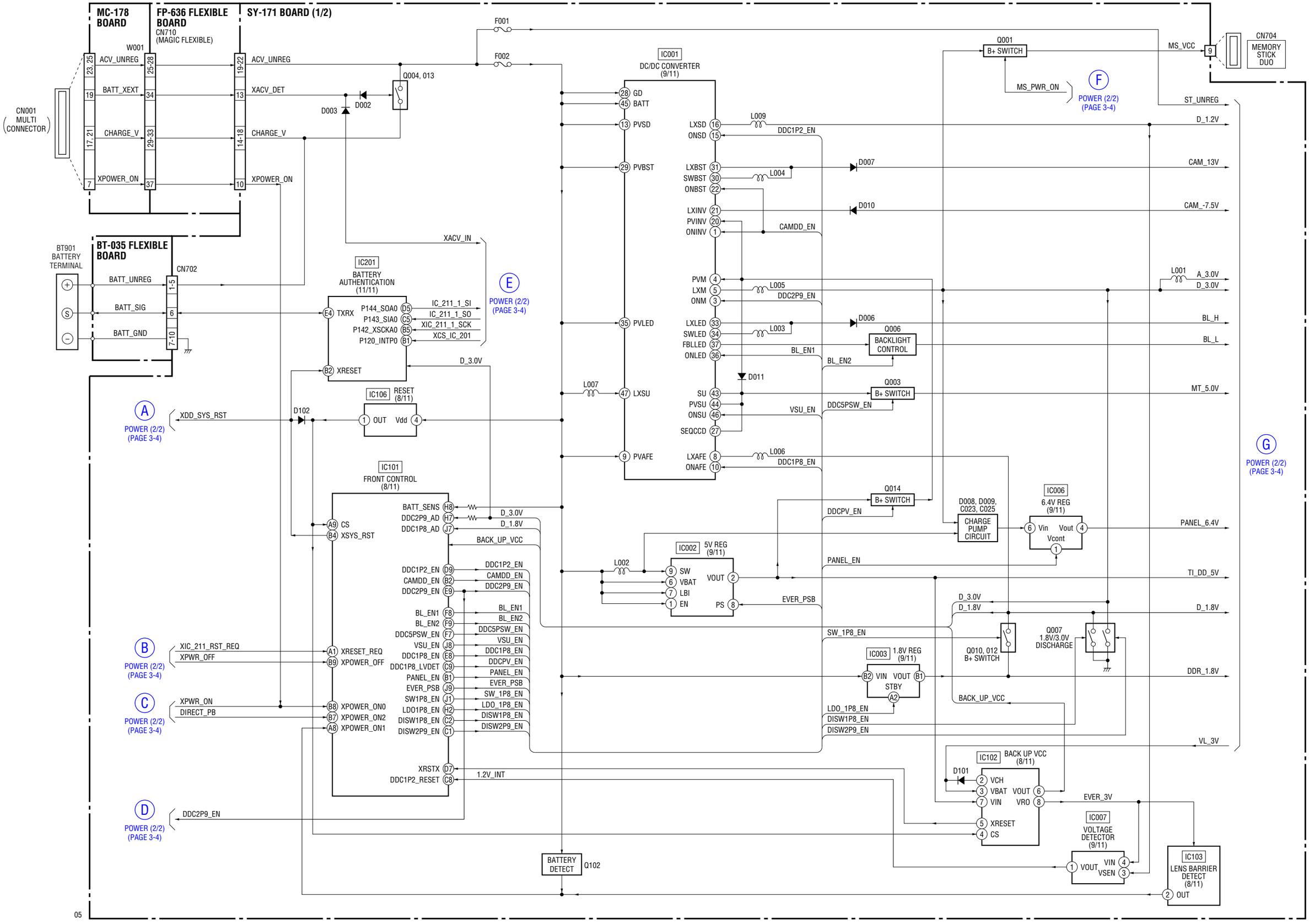
3-2. OVERALL BLOCK DIAGRAM (2/2)

( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



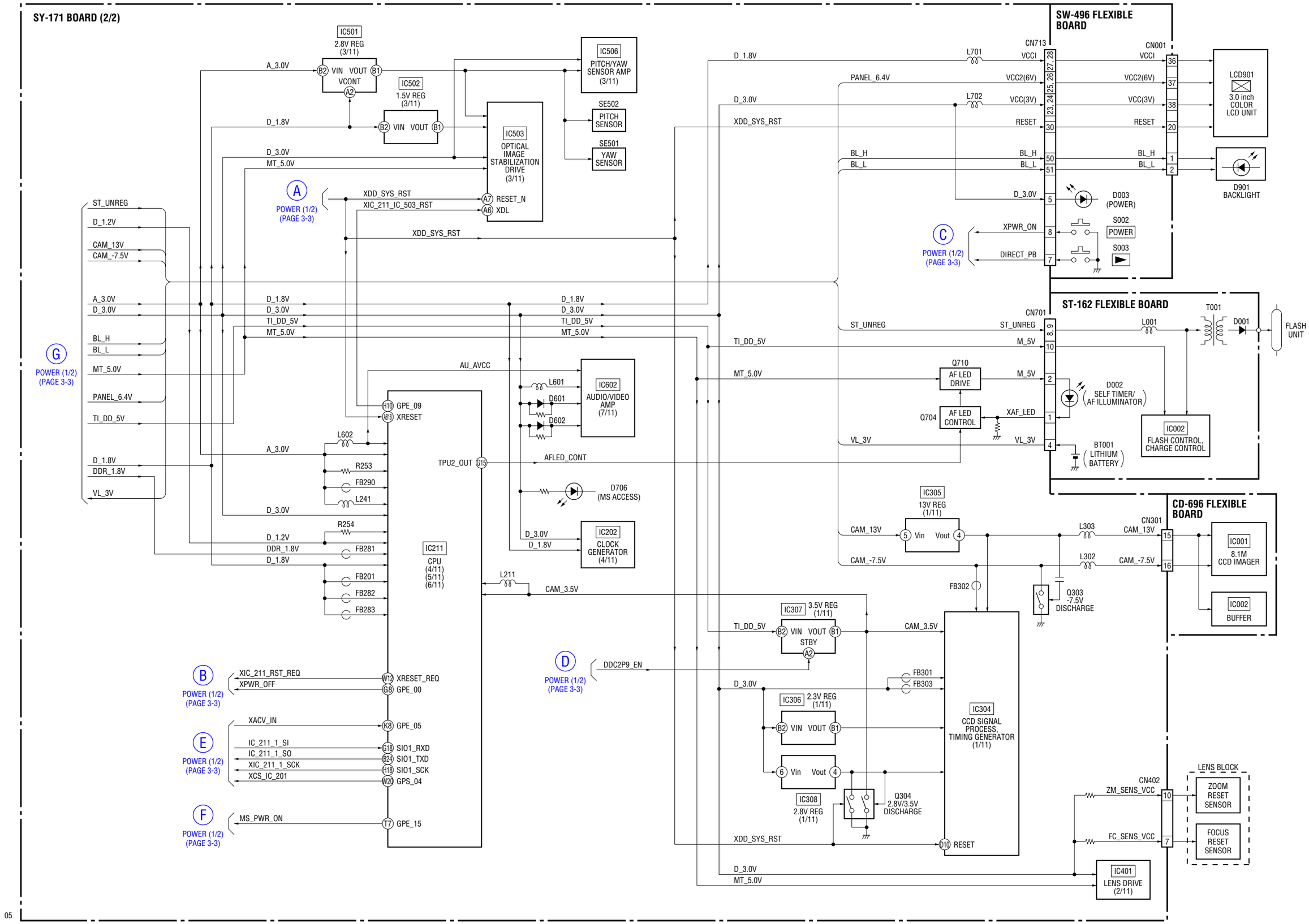
3-3. POWER BLOCK DIAGRAM (1/2)

( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



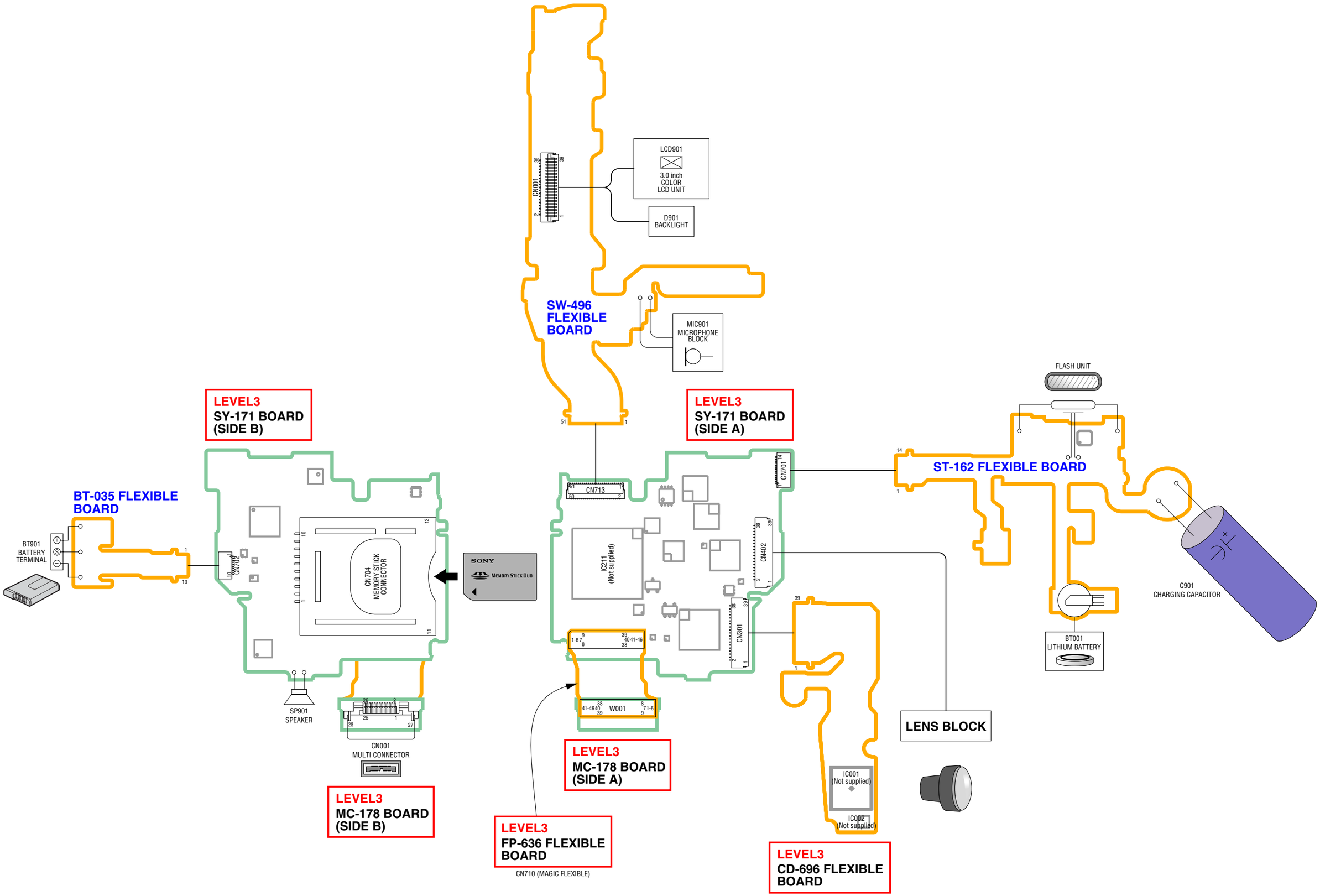
3-4. POWER BLOCK DIAGRAM (2/2)

( ) : Number in parenthesis ( ) indicates the division number of schematic diagram where the component is located.



4. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

4-1. FRAME SCHEMATIC DIAGRAM



4-2. SCHEMATIC DIAGRAMS

Link

- SW-496 FLEXIBLE BOARD (LCD, CONTROL SWITCH)
- BT-035 FLEXIBLE BOARD (BATTERY IN)
- ST-162 FLEXIBLE BOARD (FLASH DRIVE)
- COMMON NOTE FOR SCHEMATIC DIAGRAMS

4-2. SCHEMATIC DIAGRAMS

THIS NOTE IS COMMON FOR SCHEMATIC DIAGRAMS
(In addition to this, the necessary note is printed in each block)

(For schematic diagrams)

- All capacitors are in μF unless otherwise noted. pF : μμF. 50 V or less are not indicated except for electrolytics and tantalums.
- Chip resistors are 1/10 W unless otherwise noted. kΩ=1000 Ω, MΩ=1000 kΩ.
- Caution when replacing chip parts.
  New parts must be attached after removal of chip.
  Be careful not to heat the minus side of tantalum capacitor, Because it is damaged by the heat.
- Some chip part will be indicated as follows.

  Example: C541 22U TA A — L452 10UH 2520

  C541 22U TA A: Kinds of capacitor / Case size
  L452 10UH 2520: External dimensions (mm)
- Constants of resistors, capacitors, ICs and etc with XX indicate that they are not used.
  In such cases, the unused circuits may be indicated.
- Parts with ★ differ according to the model/destination.
  Refer to the mount table for each function.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- Signal name
  XEDIT → $\overline{\text{EDIT}}$ PB/XREC → PB/$\overline{\text{REC}}$
- : non flammable resistor
- : fusible resistor
- : panel designation
- : B+ Line
- : B– Line
- : IN/OUT direction of (+,–) B LINE.
- : adjustment for repair.
- : not use circuit

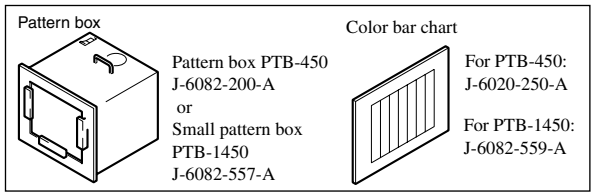
(Measuring conditions voltage and waveform)

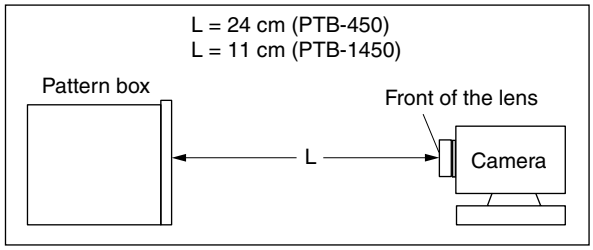
- Voltages and waveforms are measured between the measurement points and ground when camera shoots color bar chart of pattern box. They are reference values and reference waveforms.
  (VOM of DC 10 MΩ input impedance is used)
- Voltage values change depending upon input impedance of VOM used.)

Precautions for Replacement of Imager

- If the imager has been replaced, carry out all the adjustments for the camera section.
- As the imager may be damaged by static electricity from its structure, handle it carefully like for the MOS IC.
  In addition, ensure that the receiver is not covered with dusts nor exposed to strong light.

1. Connection





2. Adjust the distance so that the output waveform of Fig. a and the Fig. b can be obtain.

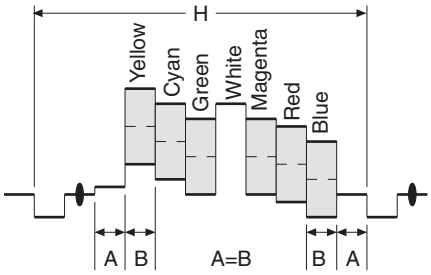


Fig. a (Video output terminal output waveform)

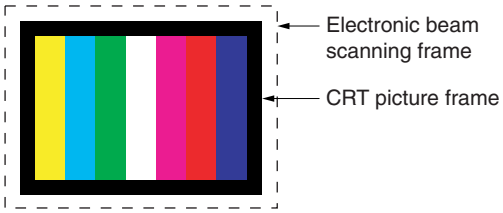


Fig.b (Picture on monitor TV)

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifie.

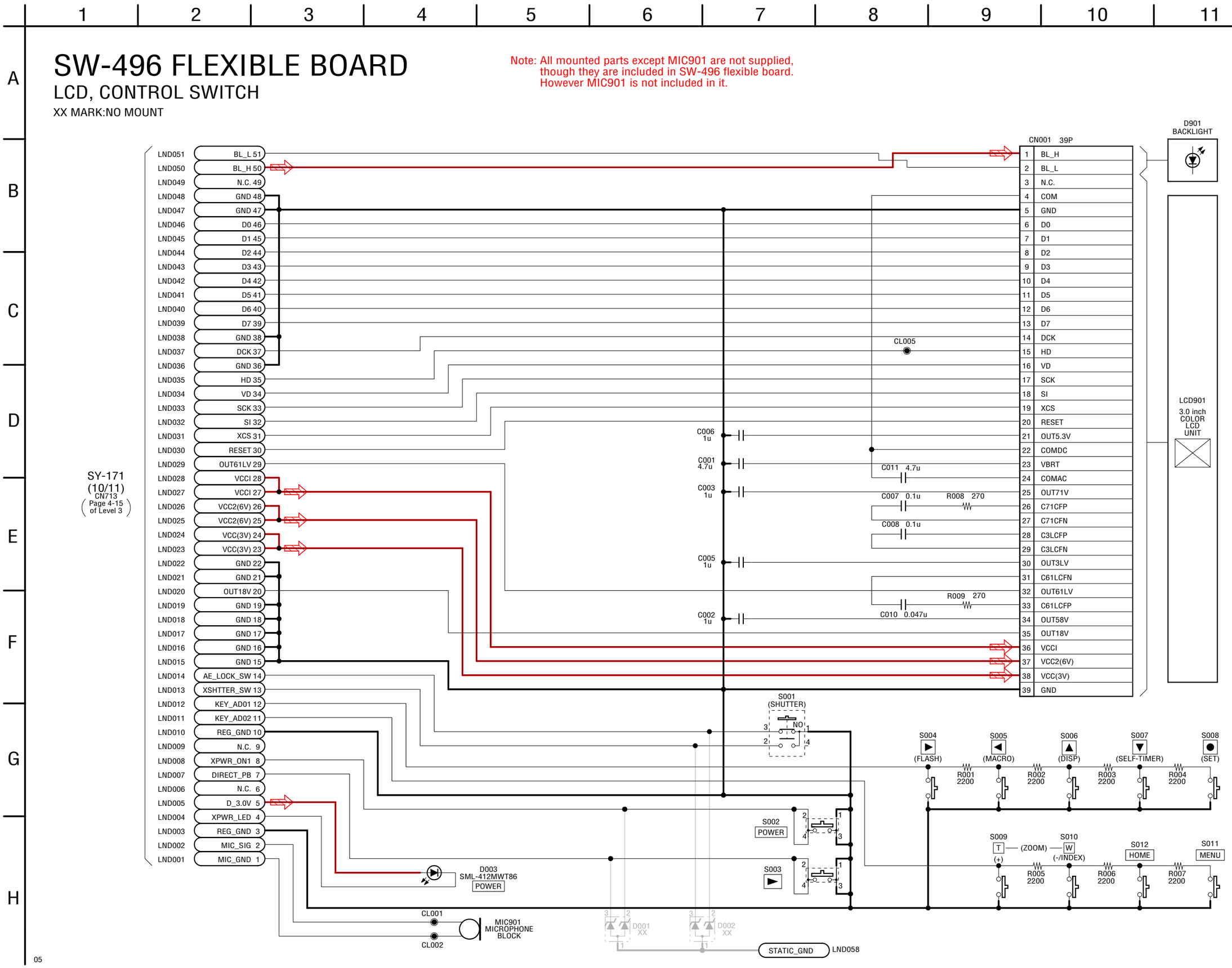
Schematic diagrams of the CD-696 flexible, SY-171, MC-178 and FP-636 flexible boards are not shown.
Pages from 4-5 to 4-16 are not shown.

SW-496 FLEXIBLE BOARD

LCD, CONTROL SWITCH

XX MARK:NO MOUNT

Note: All mounted parts except MIC901 are not supplied,
though they are included in SW-496 flexible board.
However MIC901 is not included in it.



• Refer to page 4-3 for mark ⚠.

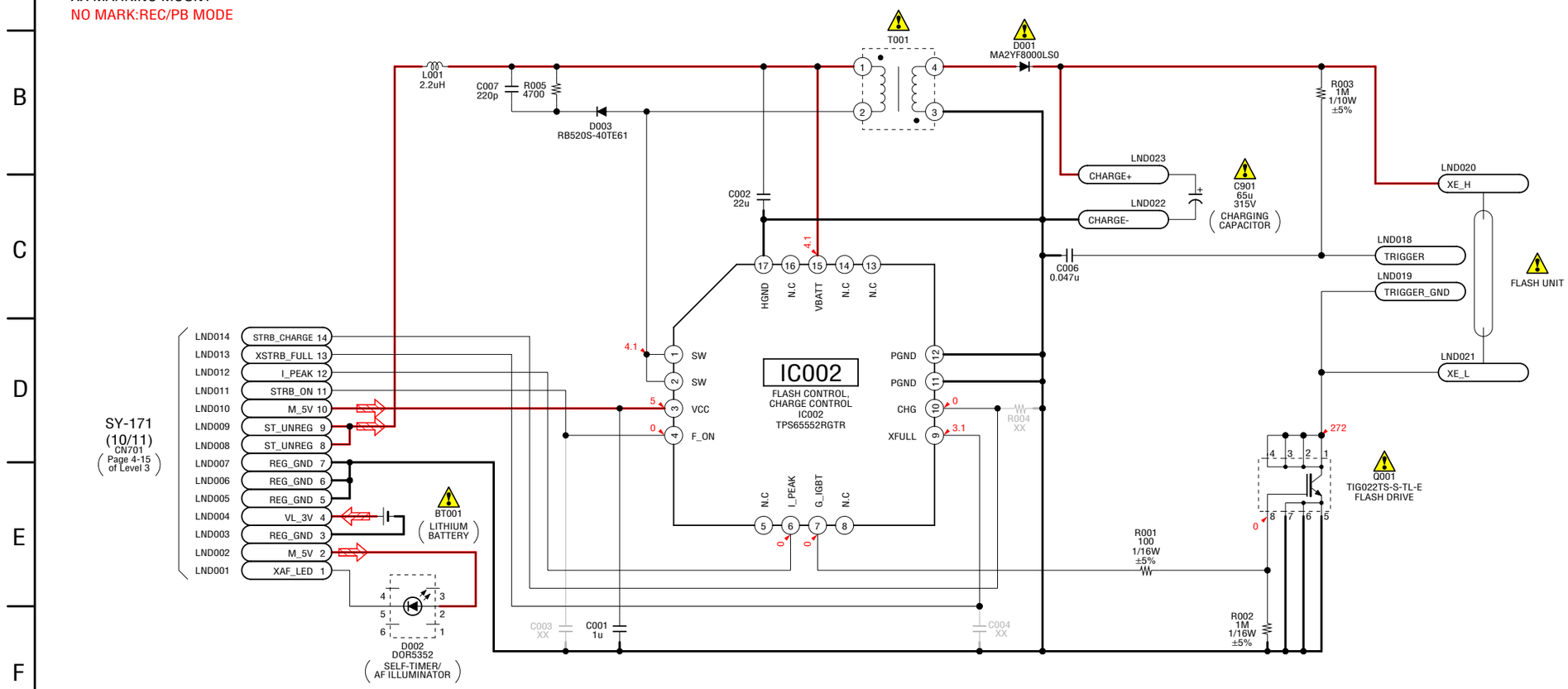
ST-162 FLEXIBLE BOARD

FLASH DRIVE

XX MARK:NO MOUNT

NO MARK:REC/PB MODE

Note: BT001 (lithium battery), C901 (charging capacitor) and flash unit are not included in ST-162 flexible complete board.

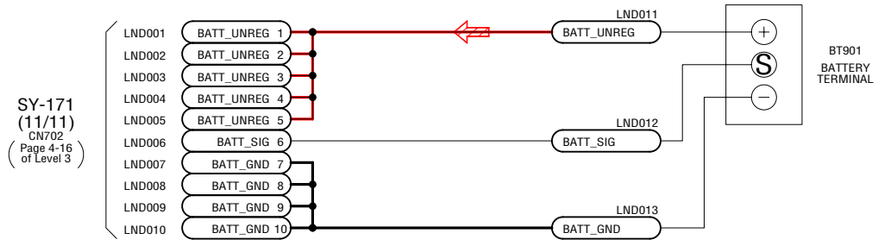


05

BT-035 FLEXIBLE BOARD

BATTERY IN

Note: BT901 is not included in BT-035 flexible board.



05

4-3. PRINTED WIRING BOARDS

Link

- SW-496 FLEXIBLE BOARD
- BT-035 FLEXIBLE BOARD
- ST-162 FLEXIBLE BOARD
- COMMON NOTE FOR PRINTED WIRING BOARDS

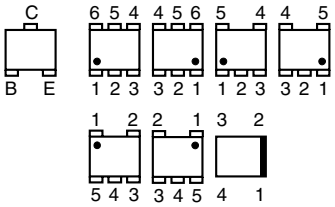
4-3. PRINTED WIRING BOARDS

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS

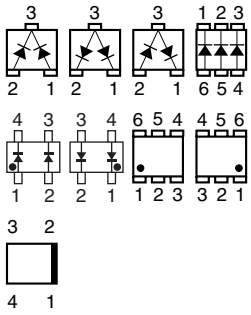
- : Uses unleaded solder.
- : Circuit board
  : Flexible board
  Pattern from the side which enables seeing.
  : pattern of the rear side
  (The other layers' patterns are not indicated)
- Through hole is omitted.
- Circled numbers refer to waveforms.
- There are a few cases that the part printed on diagram isn't mounted in this model.
- : panel designation

- Chip parts.

Transistor



Diode



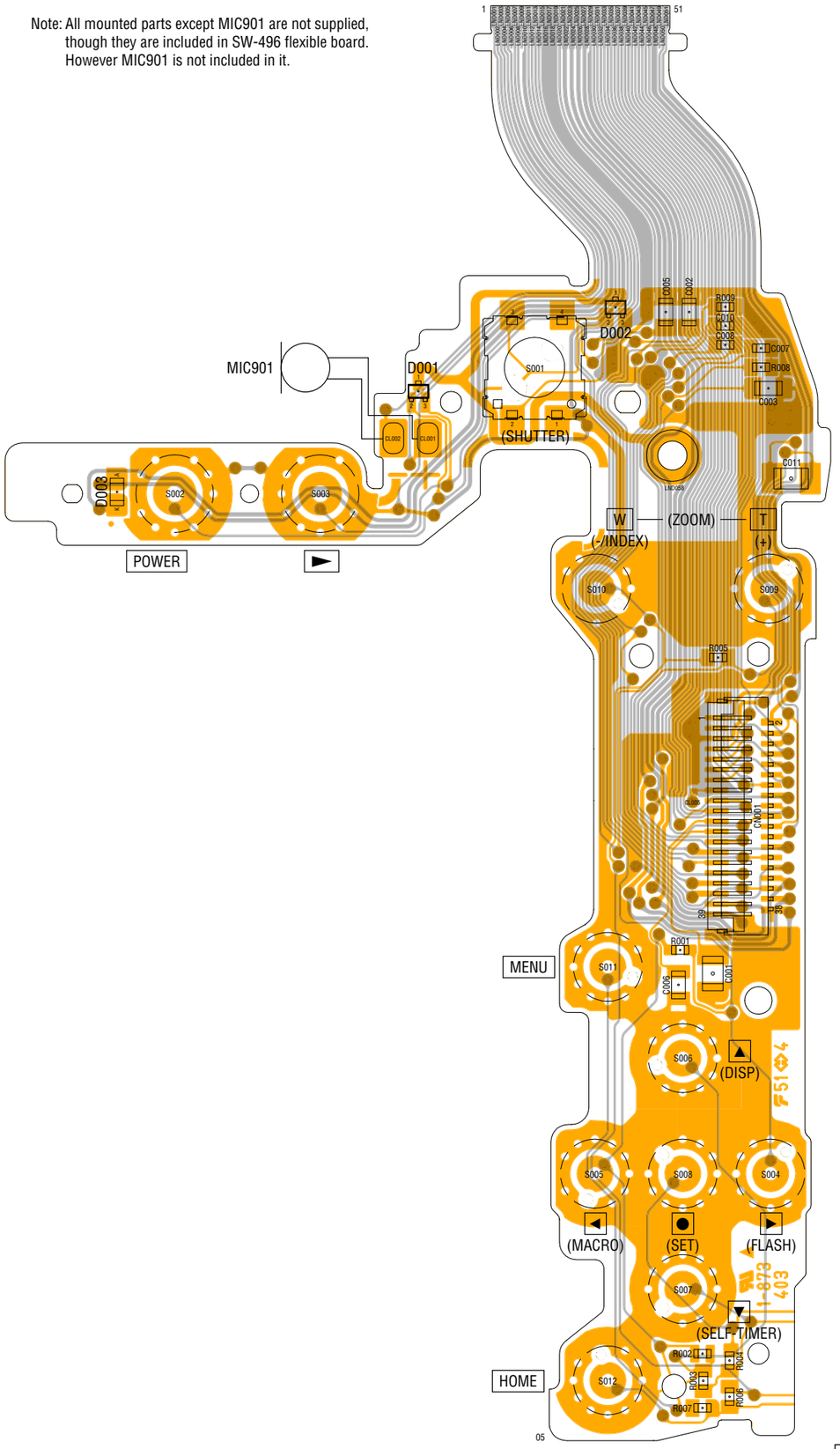
Printed wiring boards of the CD-696 flexible, SY-171, MC-178 and FP-636 flexible boards are not shown.
Pages 4-21 and 4-22 are not shown.

SW-496 (2 layers), ST-162 (2 layers), BT-035 (1 layer)

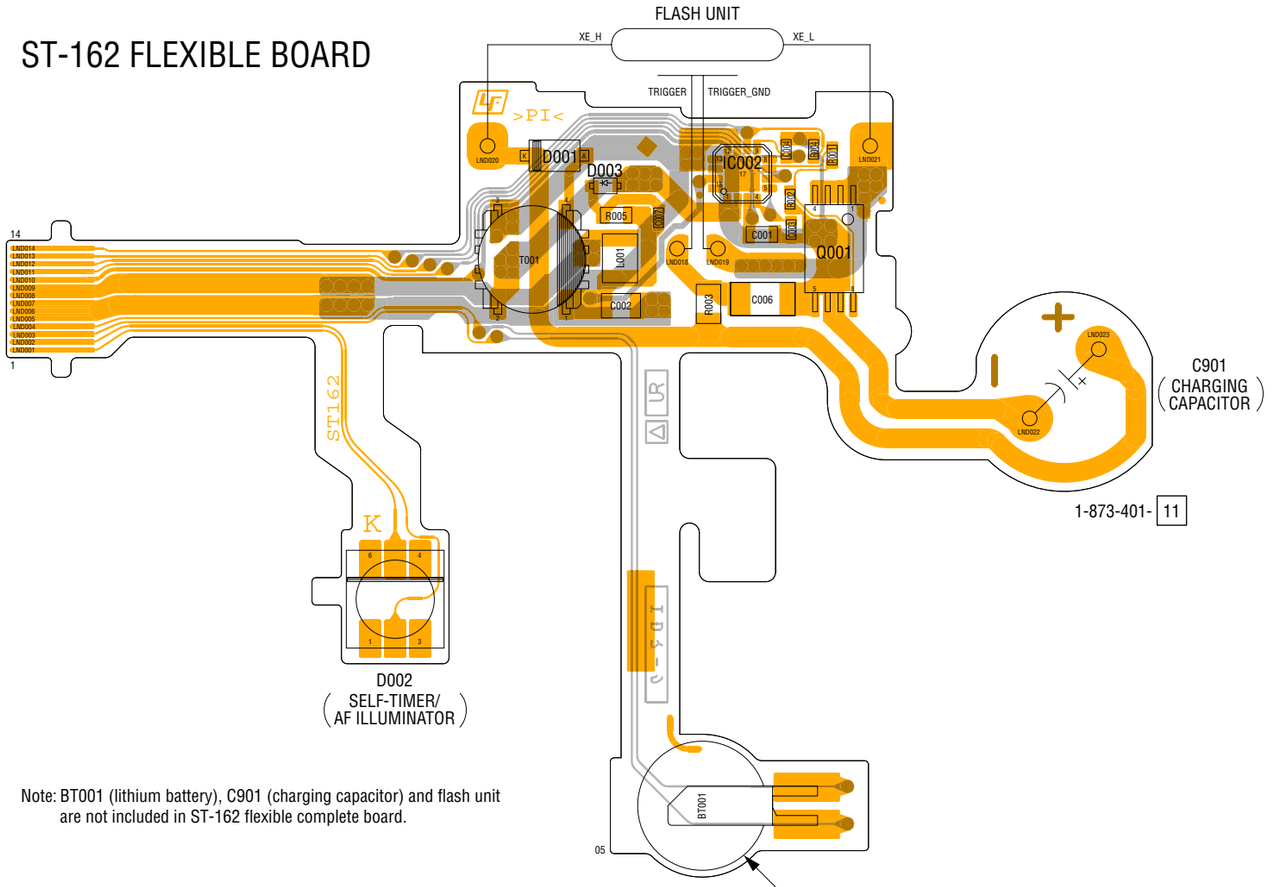
: Uses unleaded solder.

SW-496 FLEXIBLE BOARD

Note: All mounted parts except MIC901 are not supplied, though they are included in SW-496 flexible board. However MIC901 is not included in it.



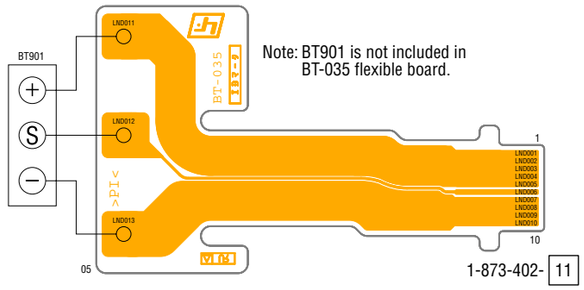
ST-162 FLEXIBLE BOARD



Note: BT001 (lithium battery), C901 (charging capacitor) and flash unit are not included in ST-162 flexible complete board.

CAUTION
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.

BT-035 FLEXIBLE BOARD



Note: BT901 is not included in BT-035 flexible board.

Mounted parts location of the SY-171 and MC-178 boards are not shown.
Pages 4-25 and 4-26 are not shown.

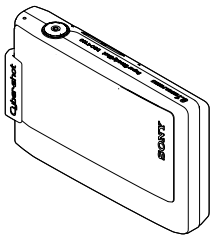
NOTE

5. REPAIR PARTS LIST

NOTE: Characters A to Z of the electrical parts list indicate location of exploded views in which the desired part is shown.

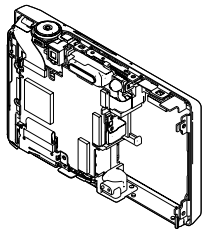
Link

EXPLODED VIEWS



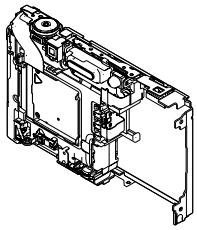
A

FRONT CABINET/LENS SECTION



B

LCD/MAIN BOARD SECTION



C

BT HOLDER SECTION

Link

ELECTRICAL PARTS LIST

ACCESSORIES

- BT-035 FLEXIBLE BOARD C
- ST-162 FLEXIBLE BOARD C
- SW-496 FLEXIBLE BOARD C

5. REPAIR PARTS LIST

NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- CAPACITORS:
  uF: µF
- COILS
  uH: µH
- RESISTORS
  All resistors are in ohms.
  METAL: metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA...: µA... , uPA... , µPA... ,
  uPB... , µPB... , µPC... , µPC... ,
  uPD..., µPD...
- Abbreviation
  AR : Argentine model
  AUS : Australian model
  BR : Brazilian model
  CH : Chinese model
  CND : Canadian model
  EE : East European model
  HK : Hong Kong model
  J : Japanese model
  JE : Tourist model
  KR : Korea model
  NE : North European model
  TW : Taiwan model

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

- Color Indication of Appearance Parts
  Example:
  (SILVER) : Cabinet's Color
  (Silver) : Parts Color

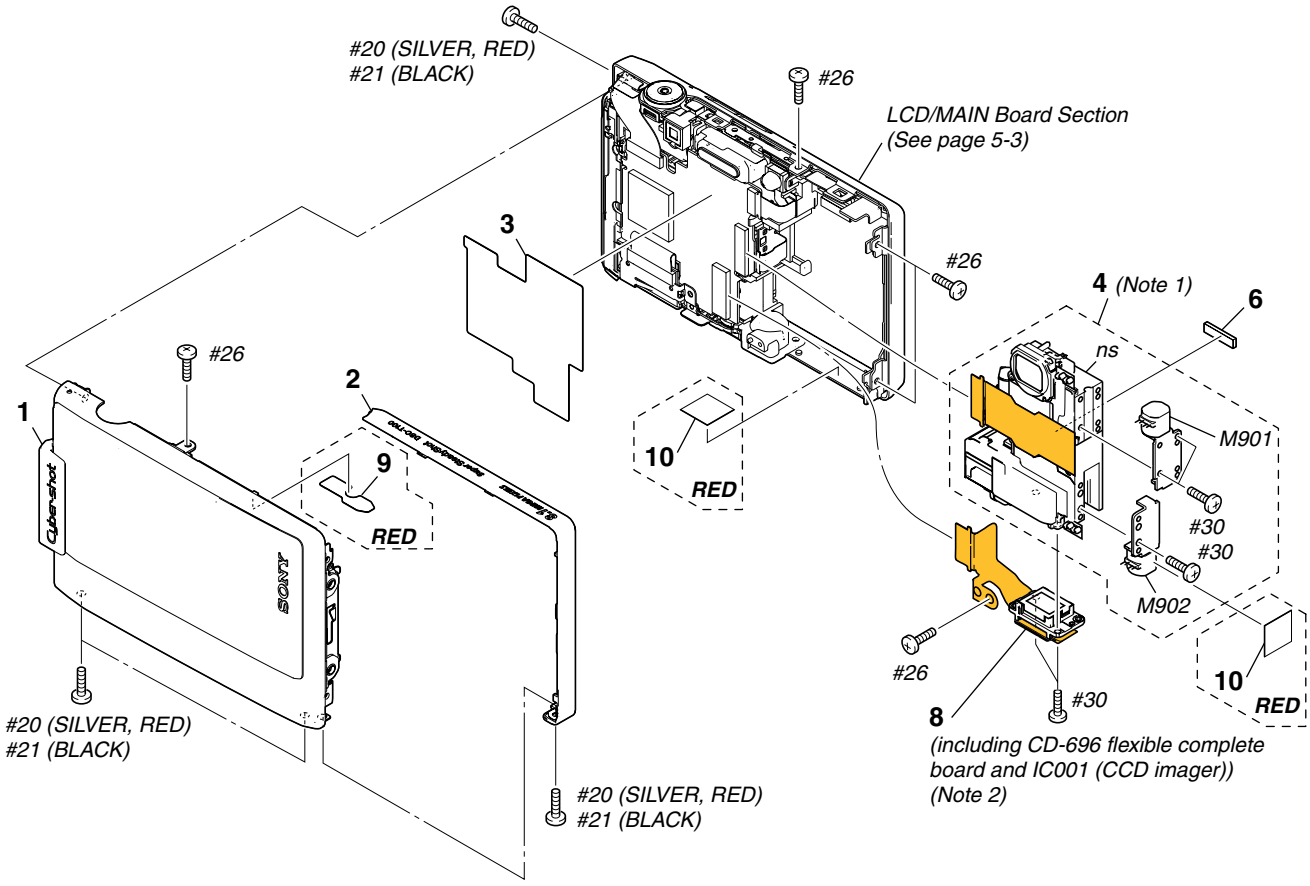
5. REPAIR PARTS LIST

DISASSEMBLY | HARDWARE LIST

5-1. EXPLODED VIEWS

5-1-1. FRONT CABINET/LENS SECTION

ns: not supplied



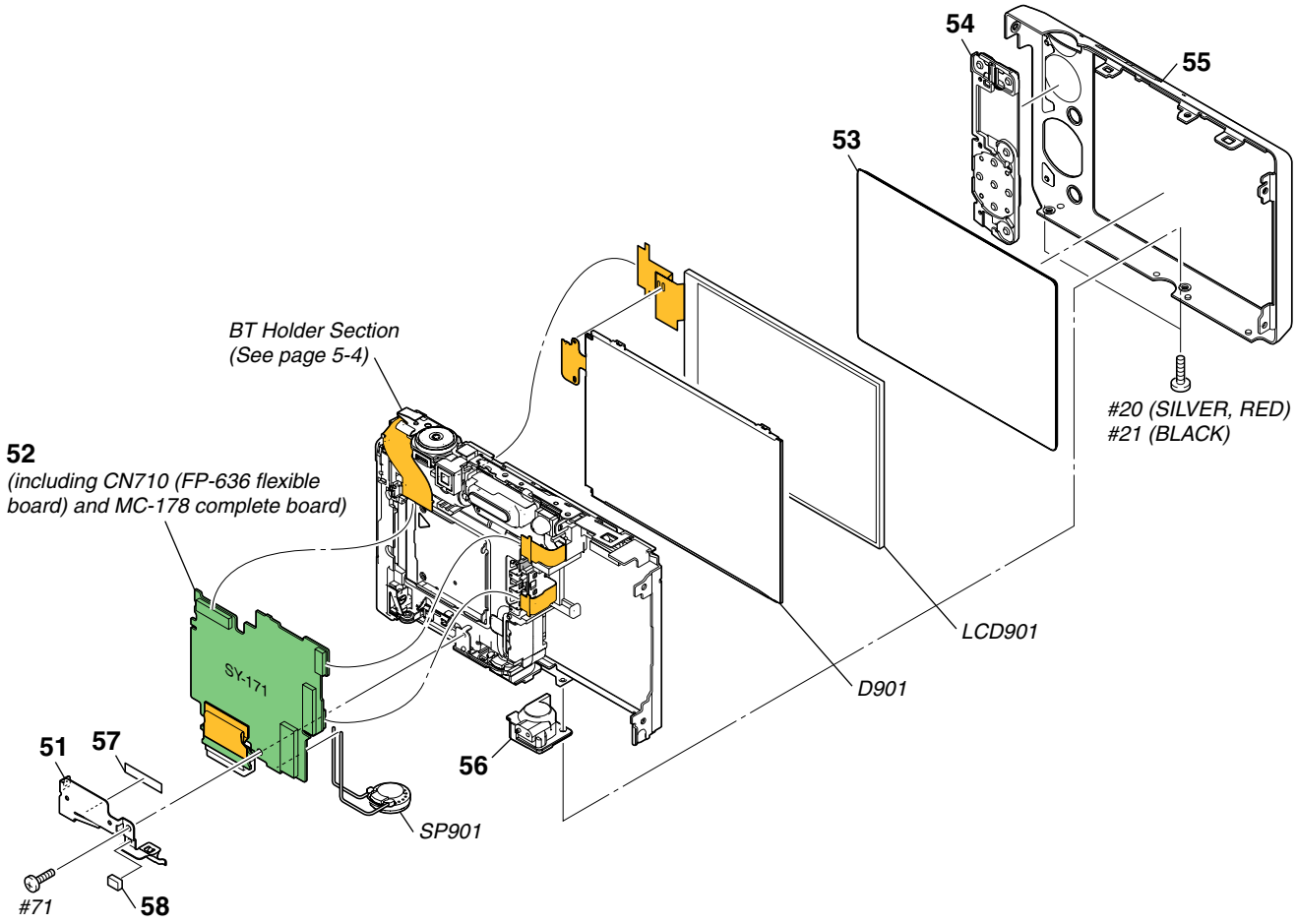
Note 1: Be sure to read "Precautions when holding the LSV-1220A" on HELP when changing the LSV-1220A.

Note 2: Be sure to read "Precautions for Replacement of Imager" on page 4-3 when changing the imager.

Ref. No.	Part No.	Description
1	X-2177-127-1	CABINET (FRONT) (BK) ASSY (BLACK)
1	X-2177-128-1	CABINET (FRONT) (RD) ASSY (RED)
1	X-2177-148-1	CABINET (FRONT) ASSY (SILVER)
2	X-2177-123-1	CABINET (BELT) ASSY (SILVER)
2	X-2177-124-1	CABINET (BELT) (BK) ASSY (BLACK)
2	X-2177-125-1	CABINET (BELT) (RD) ASSY (RED)
* 3	3-099-395-01	SHEET (A), SY INSULATING
4	A-1236-991-A	LSV-1220A (SERVICE) (Note 1)
* 6	3-099-396-01	CUSHION, LENS
8	A-1212-554-A	CCD BLOCK ASSY (including CD-696 flexible complete board and IC001 (CCD imager)) (Note 2)

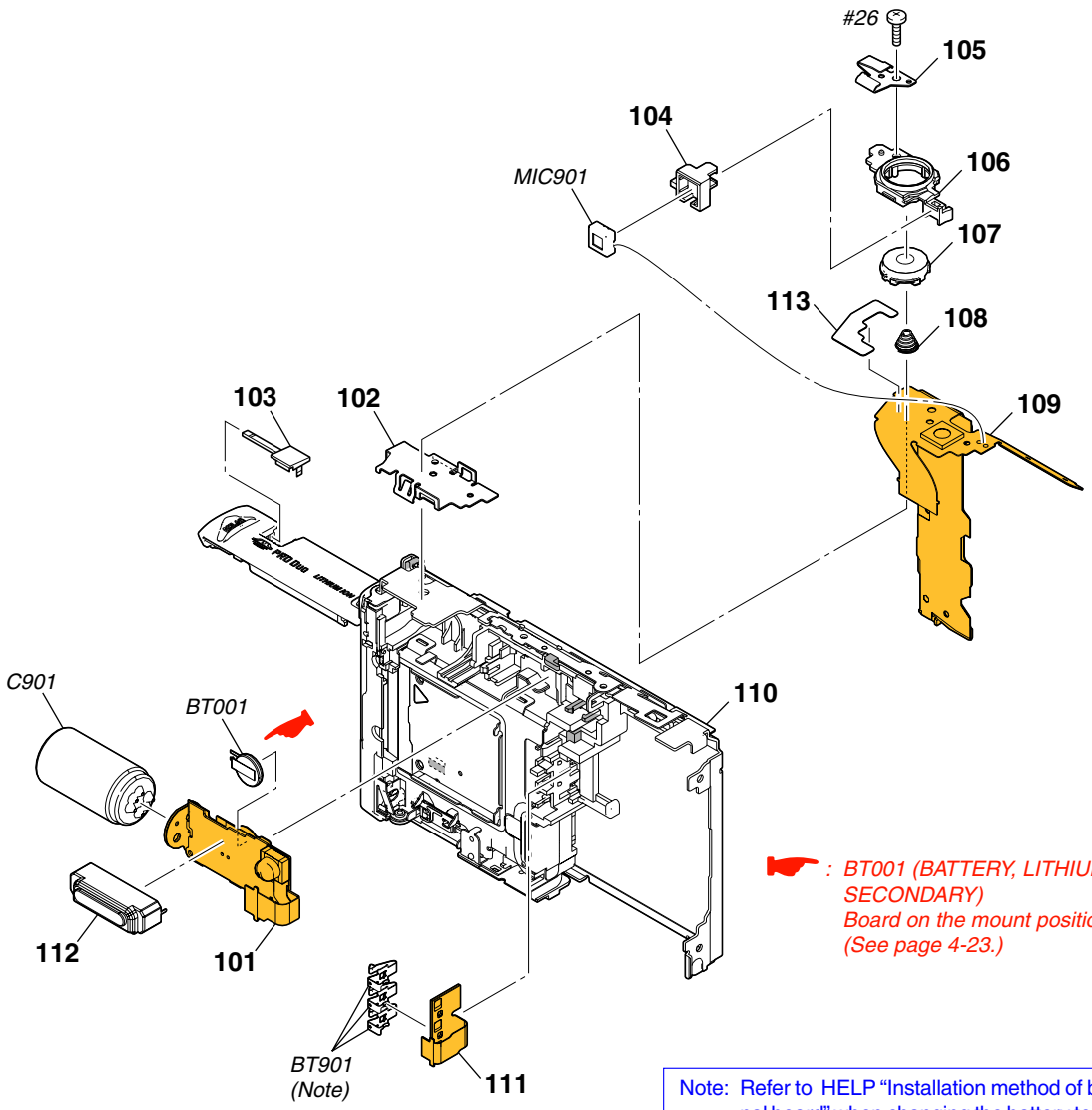
Ref. No.	Part No.	Description
* 9	3-198-291-01	SHEET, BAND LIGHT INTERCEPTION (RED)
* 10	3-211-628-01	SHEET, CCD LIGHT INTERCEPTION (RED)
M901	1-787-538-11	STEPPING MOTOR, OPTICAL (Z1220)
M902	1-787-539-11	STEPPING MOTOR, OPTICAL (F1220)
#20	2-635-591-31	SCREW (M1.4), NEW TRUSTAR P2 (Silver)
#21	2-662-396-21	SCREW (M1.4), NEW, TRUSTAR, P2 (Black)
#26	2-635-591-11	SCREW (M1.4), NEW TRUSTAR P2 (Silver)
#30	3-086-156-11	SCREW B1.2 (White)

5-1-2. LCD/MAIN BOARD SECTION



Ref. No.	Part No.	Description
* 51	3-099-398-01	PLATE, MC FIXED
52	A-1257-764-A	SY-171 BOARD, COMPLETE (SERVICE) (including CN710 (FP-636 flexible board) and MC-178 complete board)
53	3-099-399-01	WINDOW, LCD
54	3-099-401-01	BUTTON, FUNCTION (SILVER, RED)
54	3-099-401-11	BUTTON, FUNCTION (BLACK)
55	X-2177-157-1	CABINET (REAR) ASSY (SILVER)
55	X-2177-158-1	CABINET (REAR) (BK) ASSY (BLACK)
55	X-2177-159-1	CABINET (REAR) (RD) ASSY (RED)
56	3-099-397-01	SCREW, TRIPOD
* 57	3-198-292-01	CUSHION, MC
* 58	3-196-553-01	GASKET (SP)
D901	1-480-023-11	BLOCK, LIGHT GUIDE PLATE (3.0)
LCD901	A-1257-852-A	SERVICE, LCD BLOCK ASSY
SP901	1-826-403-31	LOUDSPEAKER (1.0CM)
#20	2-635-591-31	SCREW (M1.4), NEW TRUSTAR P2 (Silver)
#21	2-662-396-21	SCREW (M1.4), NEW, TRUSTAR, P2 (Black)
#71	3-208-537-01	0+Z M1.4X2 NEW TORASUTA (Red)

5-1-3. BT HOLDER SECTION



Note: Refer to HELP "Installation method of battery terminal board" when changing the battery terminal board.

CAUTION
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.

• Refer to page 5-1 for mark ⚠.

Ref. No.	Part No.	Description
101	A-1246-095-A	ST-162 FLEXIBLE BOARD, COMPLETE
* 102	3-099-408-01	FRAME, RELEASE
103	3-099-403-01	LID, DC (SILVER)
103	3-099-403-11	LID, DC (BLACK)
103	3-099-403-21	LID, DC (RED)
104	3-099-402-01	HOLDER, MICROPHONE
105	3-099-405-01	PLATE (REAR), INNER
106	3-099-407-01	BASE, RELEASE
107	3-099-406-02	BUTTON, RELEASE
108	3-099-409-01	SPRING, RELEASE
109	1-873-403-11	SW-496 FLEXIBLE BOARD

Ref. No.	Part No.	Description
110	X-2177-161-1	HOLDER ASSY, BT (SILVER)
110	X-2177-162-1	HOLDER (BK) ASSY, BT (BLACK)
110	X-2177-163-1	HOLDER (RD) ASSY, BT (RED)
111	1-873-402-11	BT-035 FLEXIBLE BOARD
⚠112	1-480-014-21	FLASH UNIT
* 113	3-208-925-01	SHEET, SW INSULATING
⚠BT001	1-756-710-11	LITHIUM RECHARGEABLE BATTERY (MS614)
BT901	1-780-456-11	TERMINAL BOARD, BATTERY (Note)
⚠*C901	1-114-382-11	CAP, ELECT 65uF 315V
MIC901	1-542-691-21	MICROPHONE BLOCK
#26	2-635-591-11	SCREW (M1.4), NEW TRUSTAR P2 (Silver)

5-2. ELECTRICAL PARTS LIST

Ref. No.	Part No.	Description
	1-873-402-11	BT-035 FLEXIBLE BOARD
		**********
		(BT901 is not included in BT-035 flexible board.)
		< BATTERY TERMINAL >
BT901	1-780-456-11	TERMINAL BOARD, BATTERY

Electrical parts list of the CD-696, FP-636 flexible and MC-178 boards are not shown.
Page 5-6 is not shown.

Ref. No.	Part No.	Description			
	A-1246-095-A	ST-162 FLEXIBLE BOARD, COMPLETE			
		**********			
	(BT001 (lithium battery), C901 (charging capacitor) and flash unit are not included in ST-162 flexible complete board.)				
⚠	1-480-014-21	FLASH UNIT			
		< BATTERY TERMINAL >			
⚠BT001	1-756-710-11	LITHIUM RECHARGEABLE BATTERY (MS614)			
		< CAPACITOR >			
C001	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C002	1-100-611-91	CERAMIC CHIP	22uF	20%	6.3V
C006	1-100-758-11	CERAMIC CHIP	0.047uF	10%	250V
C007	1-164-933-11	CERAMIC CHIP	220PF	10%	50V
⚠* C901	1-114-382-11	CAP, ELECT	65uF		315V
		< DIODE >			
⚠* D001	6-501-433-01	DIODE MA2YF8000LS0			
* D002	6-501-364-01	DIODE DOR5352 (SLEF-TIMER/AF ILLUMINATOR)			
D003	6-500-619-01	DIODE RB520S-40TE61			
		< IC >			
IC002	6-707-555-01	IC TPS65552RGTR			
		< COIL >			
* L001	1-400-820-11	INDUCTOR	2.2uH		
		< TRANSISTOR >			
⚠* Q001	6-551-447-01	TRANSISTOR	TIG022TS-S-TL-E		
		< RESISTOR >			
R001	1-218-941-81	RES-CHIP	100	5%	1/16W
R002	1-218-989-11	RES-CHIP	1M	5%	1/16W
R003	1-216-121-11	RES-CHIP	1M	5%	1/10W
R005	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
		< TRANSFORMER >			
⚠T001	1-445-108-21	TRANSFORMER, D.C-D.C CONVERTER			
	1-873-403-11	SW-496 FLEXIBLE BOARD			
		**********			
		(All mounted parts except MIC901 are not supplied, though they are included in SW-496 flexible board. However MIC901 is not included in it.)			
		< MICROPHONE >			
MIC901	1-542-691-21	MICROPHONE BLOCK			

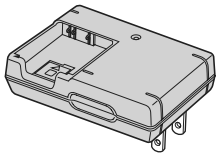
Electrical parts list of the SY-171 board is not shown.
Pages 5-8 to 5-12 are not shown.

• Refer to page 5-1 for mark ⚠.

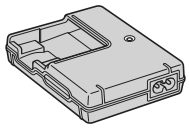
CAUTION
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.

Checking supplied accessories.

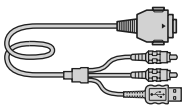
Note 1: This item is supplied with the unit as an accessory, but is not prepared as a service part.



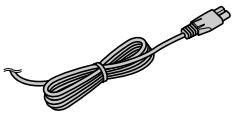
Battery Charger
BC-CSGB
⚠ 1-479-791-12 (J)
⚠ 1-479-791-22 (US, CND)



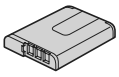
Battery Charger
BC-CSGB
⚠ 1-479-791-32
(EXCEPT US, CND,
E: Latin America, BR, J)
BC-CSGC
⚠ 1-480-175-31
(E: Latin America)



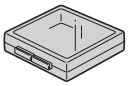
USB, A/V Cable for
Multi-use Terminal
1-829-866-51



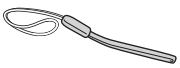
Power Cord
⚠ 1-555-074-91 (AUS)
⚠ 1-782-476-71 (CH)
⚠ 1-823-947-71 (KR)
⚠ 1-827-269-31 (UK, HK)
⚠ 1-827-826-41 (AEP, E)
⚠ 1-828-050-31 (JE)



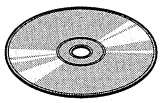
Rechargeable Battery Pack
NP-BG1
(Note 1)



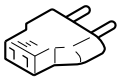
Battery Case
(Note 1)



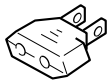
Wrist Strap
2-050-981-01
(SILVER, RED)
2-050-981-11
(BLACK)



CD-ROM
(Cyber-shot Application Software/
"Cyber-shot Handbook"/
"Cyber-shot Step-up Guide")
2-319-286-01 (EXCEPT US)
3-099-852-01 (US)



Conversion (2P) Adaptor
⚠ 1-569-007-12 (JE)



Conversion (2P) Adaptor
⚠ 1-569-008-12 (E: NTSC)

Other accessories

2-319-287-01 HANDBOOK (PDF) (JAPANESE) (Note 2)
2-319-287-11 HANDBOOK (PDF) (ENGLISH) (Note 2)
2-319-287-21 HANDBOOK (PDF) (FRENCH) (Note 2)
2-319-287-31 HANDBOOK (PDF) (ITALIAN) (Note 2)
2-319-287-41 HANDBOOK (PDF) (SPANISH) (Note 2)

2-319-287-51 HANDBOOK (PDF) (PORTUGUESE) (Note 2)
2-319-287-61 HANDBOOK (PDF) (GERMAN) (Note 2)
2-319-287-71 HANDBOOK (PDF) (DUTCH) (Note 2)
2-319-287-81 HANDBOOK (PDF) (TRADITIONAL CHINESE) (Note 2)
2-319-287-91 HANDBOOK (PDF) (SIMPLIFIED CHINESE) (Note 2)

2-319-288-11 HANDBOOK (PDF) (RUSSIAN) (Note 2)
2-319-288-21 HANDBOOK (PDF) (ARABIC) (Note 2)
2-319-288-31 HANDBOOK (PDF) (PERSIAN) (Note 2)
2-319-288-41 HANDBOOK (PDF) (KOREAN) (Note 2)
2-319-288-51 HANDBOOK (PDF) (POLISH) (Note 2)

2-319-288-61 HANDBOOK (PDF) (CZECH) (Note 2)
2-319-288-71 HANDBOOK (PDF) (HUNGARIAN) (Note 2)
2-319-288-81 HANDBOOK (PDF) (SLOVAK) (Note 2)
2-319-288-91 HANDBOOK (PDF) (SWEDISH) (Note 2)
2-319-289-11 HANDBOOK (PDF) (FINNISH) (Note 2)

2-319-289-21 HANDBOOK (PDF) (NORWEGIAN) (Note 2)
2-319-289-31 HANDBOOK (PDF) (DANISH) (Note 2)
2-319-289-41 HANDBOOK (PDF) (THAI) (Note 2)
2-319-289-51 HANDBOOK (PDF) (MALAY) (Note 2)
2-319-289-61 HANDBOOK (PDF) (TURKISH) (Note 2)

2-319-289-71 HANDBOOK (PDF) (GREEK) (Note 2)
2-319-290-01 MANUAL, INSTRUCTION (JAPANESE) (J)
2-319-290-12 MANUAL, INSTRUCTION (ENGLISH)
(CND, AEP, UK, E, HK, AUS, JE)
2-319-290-22 MANUAL, INSTRUCTION (FRENCH, ITALIAN) (CND, AEP)
2-319-290-32 MANUAL, INSTRUCTION (SPANISH, PORTUGUESE)
(AEP, E, JE)

2-319-290-42 MANUAL, INSTRUCTION (GERMAN, DUTCH) (AEP)
2-319-290-52 MANUAL, INSTRUCTION (TRADITIONAL CHINESE,
SIMPLIFIED CHINESE) (E, HK, CH, JE)
2-319-290-72 MANUAL, INSTRUCTION (ARABIC, PERSIAN) (E)
2-319-290-82 MANUAL, INSTRUCTION (KOREAN) (KR, JE)
2-319-290-92 MANUAL, INSTRUCTION (POLISH, CZECH) (AEP)

2-319-294-12 MANUAL, INSTRUCTION (HUNGARIAN, SLOVAK) (AEP)
2-319-294-22 MANUAL, INSTRUCTION (SWEDISH, FINNISH) (AEP)
2-319-294-32 MANUAL, INSTRUCTION (NORWEGIAN, DANISH) (AEP)
2-319-294-42 MANUAL, INSTRUCTION (THAI, MALAY) (E)
2-319-294-52 MANUAL, INSTRUCTION (TURKISH, GREEK) (AEP)

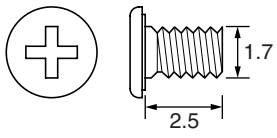
2-319-294-62 MANUAL, INSTRUCTION (ENGLISH, SPANISH) (US)

Note 2: Handbooks (PDF) of each language are included in CD-ROM (Cyber-shot Application Software).

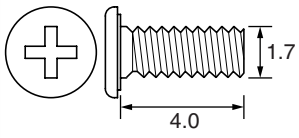
• Refer to the page 5-1 for mark ⚠.

HARDWARE LIST (1/4)

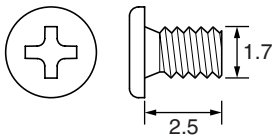
#1: M1.7 X 2.5
(Black)
2-635-562-11



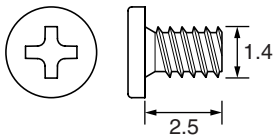
#2: M1.7 X 4.0
(Black)
2-635-562-31



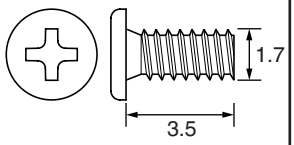
#3: M1.7 X 2.5
(Red)
2-660-401-01



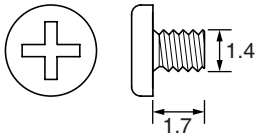
#4: M1.4 X 2.5 (Tapping)
(Dark Silver)
3-348-998-81



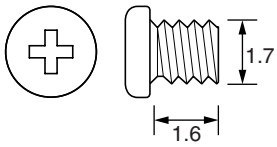
#5: M1.7 X 3.5 (Tapping)
(Black)
3-080-204-01



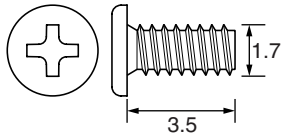
#6: M1.4 X 1.7
(Silver)
2-598-474-01



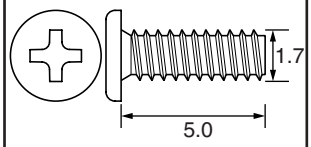
#7: M1.7 X 1.6
(Black)
7-627-552-18



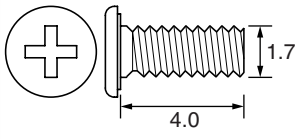
#8: M1.7 X 3.5 (Tapping)
(Silver)
3-078-890-01



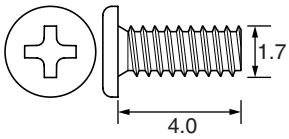
#9: M1.7 X 5.0 (Tapping)
(Silver)
3-078-890-21



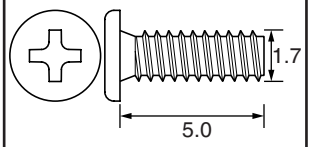
#10: M1.7 X 4.0
(Silver)
2-599-475-31



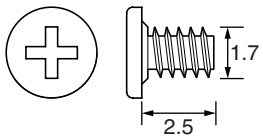
#11: M1.7 X 4.0 (Tapping)
(Silver)
3-078-890-11



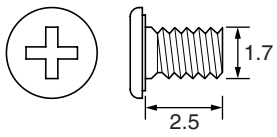
#12: M1.7 X 5.0 (Tapping)
(Black)
3-080-204-21



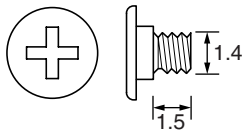
#13: M1.7 X 2.5 (Tapping)
(Silver)
3-085-397-01



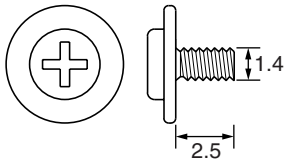
#14: M1.7 X 2.5
(Silver)
2-599-475-11



#15: M1.4 X 1.5
(Silver)
3-062-214-01



#16: M1.4 X 2.5
(Silver)
2-586-337-01



#17: M1.7 X 1.5
(Silver)
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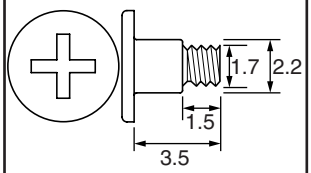
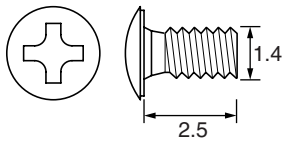
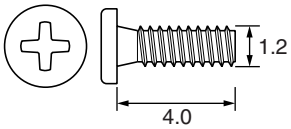


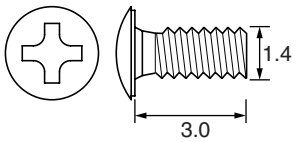
#18: M1.4 X 2.5
(Silver)
2-635-591-21



#19: M1.2 X 4.0 (Tapping)
(Red)
3-086-156-21

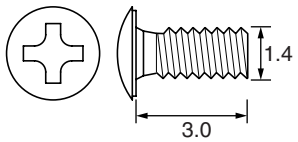


#20: M1.4 X 3.0
(Silver)
2-635-591-31

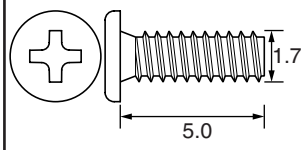


HARDWARE LIST (2/4)

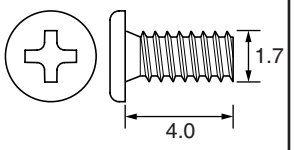
#21: M1.4 X 3.0
(Black)
2-662-396-21



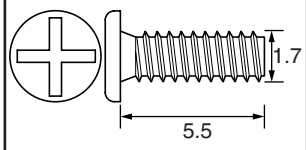
#22: M1.7 X 5.0 (Tapping)
(Silver)
3-083-261-01



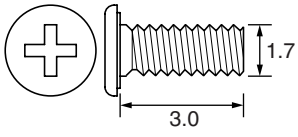
#23: M1.7 X 4.0 (Tapping)
(Black)
3-080-204-11



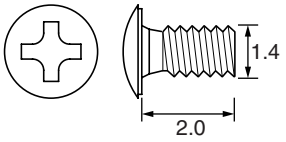
#24: B1.7 X 5.5 (Tapping)
(Black)
4-679-805-11



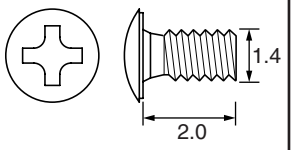
#25: M1.7 X 3.0
(Black)
2-635-562-21



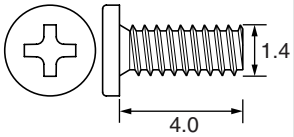
#26: M1.4 X 2.0
(Silver)
2-635-591-11



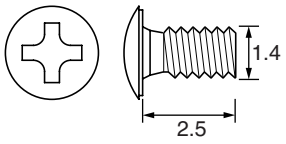
#27: M1.4 X 2.0
(Black)
2-662-396-11



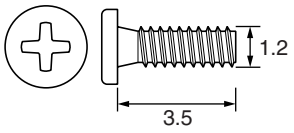
#28: M1.4 X 4.0 (Tapping)
(Dark Silver)
3-348-998-61



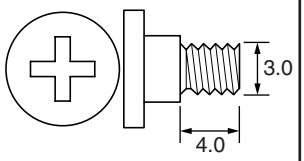
#29: M1.4 X 2.5
(Black)
2-662-396-01



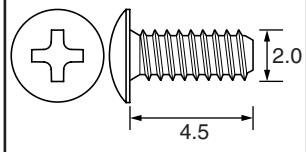
#30: M1.2 X 4.0 (Tapping)
(White)
3-086-156-11



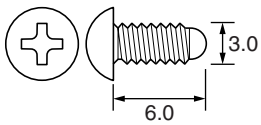
#31: M3.0 X 4.0
(Silver)
2-102-434-01



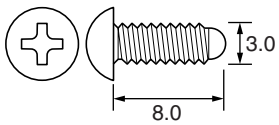
#32: M2.0 X 4.5 (Tapping)
(Silver)
2-102-498-01



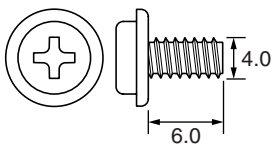
#33: M3.0 X 6.0
(Silver)
3-077-331-21



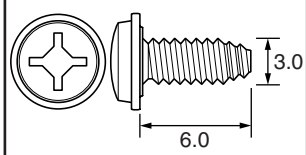
#34: M3.0 X 8.0
(Black)
3-077-331-41



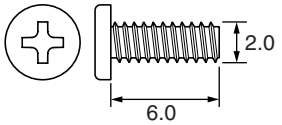
#35: M4.0 X 6.0 (Tapping)
(Silver)
3-975-291-02



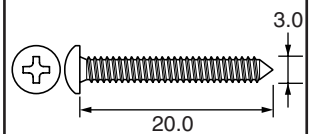
#36: M3.0 X 6.0
(Silver)
4-886-821-11



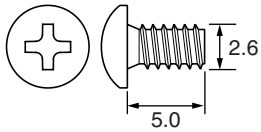
#37: M2.0 X 6.0 (Tapping)
(Black)
3-080-206-31



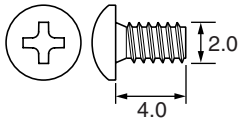
#38: M3.0 X 20.0 (Tapping)
(Silver)
7-685-651-79



#39: M2.6 X 5.0 (Tapping)
(Black)
7-685-791-09

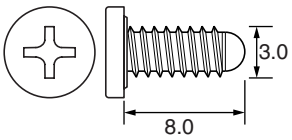


#40: M2.0 X 4.0 (Tapping)
(Silver)
7-685-851-04

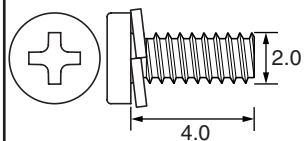


HARDWARE LIST (3/4)

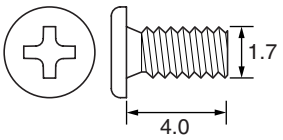
#41: M3.0 X 8.0 (Tapping)
(Silver)
3-065-748-01



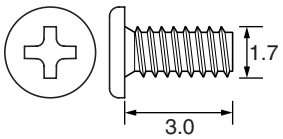
#42: M2.0 X 4.0 (Tapping)
(Silver)
7-628-253-00



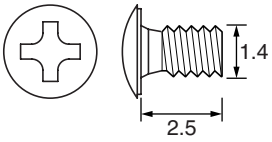
#43: M1.7 X 4.0
(Red)
2-660-401-31



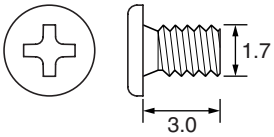
#44: M1.7 X 3.0 (Tapping)
(Silver)
3-078-890-61



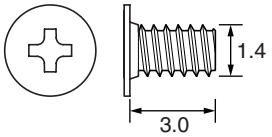
#45: M1.4 X 2.5
(Silver)
2-587-151-01



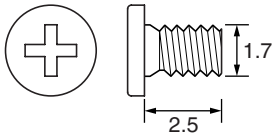
#46: M1.7 X 3.0
(Red)
2-660-401-11



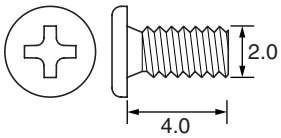
#47: M1.4 X 3.0 (Tapping)
(Silver)
2-665-774-01



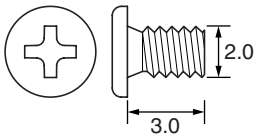
#48: M1.7 X 2.5
(Silver)
3-973-497-91



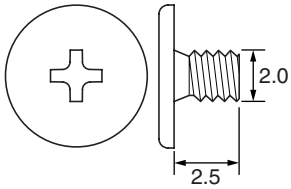
#49: M2.0 X 4.0
(Black)
2-630-005-31



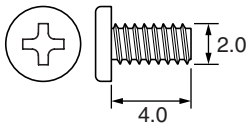
#50: M2.0 X 3.0
(Red)
2-891-494-11



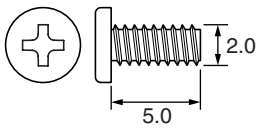
#51: M2.0 X 2.5
(Silver)
3-073-686-01



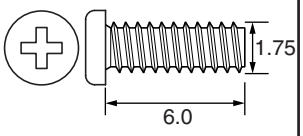
#52: M2.0 X 4.0 (Tapping)
(Black)
3-080-206-11



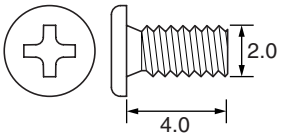
#53: M2.0 X 5.0 (Tapping)
(Black)
3-080-206-21



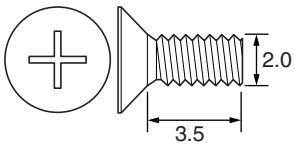
#54: M1.75 X 6.0 (Tapping)
(Black)
3-318-203-11



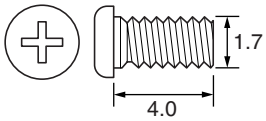
#55: M2.0 X 4.0
(Silver)
2-655-582-11



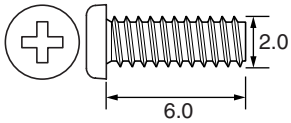
#56: M2.0 X 3.5
(Silver)
3-067-187-11



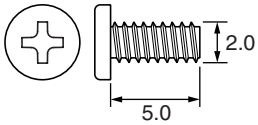
#57: M1.7 X 4.0
(Black)
7-627-852-18



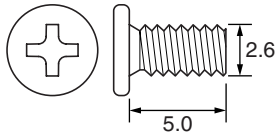
#58: M2.0 X 6.0 (Tapping)
(Silver)
3-719-408-11



#59: M2.0 X 5.0 (Tapping)
(Silver)
3-080-205-21

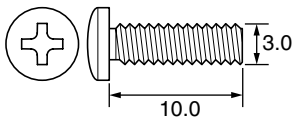


#60: M2.6 X 5.0
(Black)
3-061-062-11

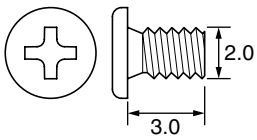


HARDWARE LIST (4/4)

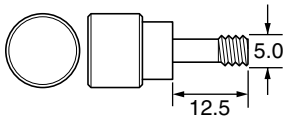
#61: M3.0 X 10.0
(Black)
7-682-549-09



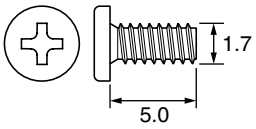
#62: M2.0 X 3.0
(Silver)
3-080-202-21



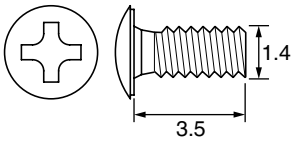
#63: M5.0 X 12.5
(Black)
3-060-811-21



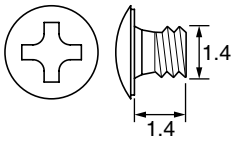
#64: M1.7 X 5.0 (Tapping)
(Silver)
2-666-551-21



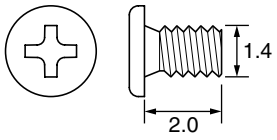
#65: M1.4 X 3.5
(Silver)
2-635-591-01



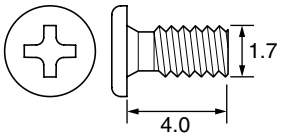
#66: M1.4 X 1.4
(Silver)
2-635-591-41



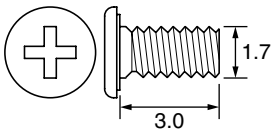
#67: M1.4 X 2.0
(Silver)
3-389-523-16



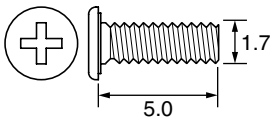
#68: M1.7 X 4.0
(Silver)
2-655-581-01



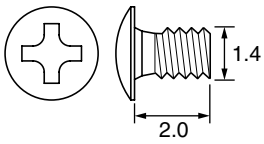
#69: M1.7 X 3.0
(Silver)
2-599-475-21



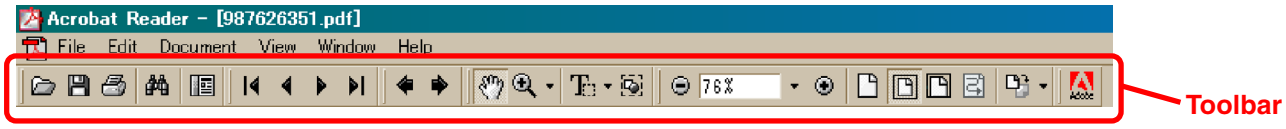
#70: M1.7 X 5.0
(Silver)
2-599-475-41



#71: M1.4 X 2.0
(Red)
3-208-537-01



[Description of main button functions on toolbar of the Adobe Acrobat Reader Ver5.0 (for Windows)]



Printing a text

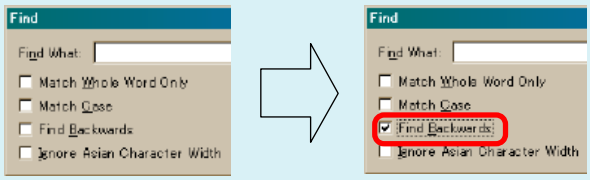
1. Click the Print button .
2. Specify a printer, print range, number of copies, and other options, and then click [OK].

Application of printing:
To set a range to be printed within a page, select the graphic selection tool and drag on the page to enclose a range to be printed, and then click the Print button.

Finding a text

1. Click the Find button .
2. Enter a character string to be found into a text box, and click the [Find]. (Specify the find options as necessary)

Application to the Service Manual:
To execute "find" from current page toward the previous pages, select the check box "Find Backward" and then click the "Find".



3. Open the find dialog box again, and click the [Find Again] and you can find the matched character strings displayed next. (Character strings entered previously are displayed as they are in the text box.)

Application to the Service Manual:
The parts on the drawing pages (block diagrams, circuit diagrams, printed circuit boards) and parts list pages in a text can be found using this find function. For example, find a Ref. No. of IC on the block diagram, and click the [Find Again] continuously, so that you can move to the Ref. No. of IC on the circuit diagram or printed circuit board diagram successively.
Note: The find function may not be applied to the Service Manual depending on the date of issue.

Switching a page

- To move to the first page, click the .
- To move to the last page, click the .
- To move to the previous page, click the .
- To move to the next page, click the .

Reversing the screens displayed once

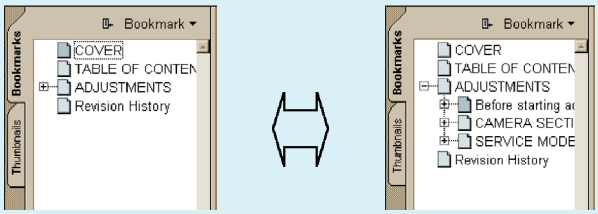
- To reverse the previous screens (operation) one by one, click the .
- To advance the reversed screens (operation) one by one, click the .

Application to the Service Manual:
This function allows you to go and back between circuit diagram and printed circuit board diagram, and accordingly it will be convenient for the voltage check.

Moving with link

1. Select either palm tool , zoom tool , text selection tool , or graphic selection tool .
2. Place the pointer in the position in a text where the link exists (such as a button on cover and the table of contents page, or blue characters on the removal flowchart page or drawing page), and the pointer will change to the forefinger form .
3. Then, click the link. (You will go to the link destination.)

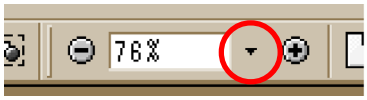
Moving with bookmark:
Click an item (text) on the bookmark pallet. and you can move to the link destination. Also, clicking can display the hidden items.
(To go back to original state, click)



Zooming or rotating the screen display

"Zoom in/out"

- Click the triangle button in the zoom control box to select the display magnification. Or, you may click or for zooming in or out.



"Rotate"

- Click rotate tool , and the page then rotates 90 degrees each.

Application to the Service Manual:
The printed circuit board diagram you see now can be changed to the same direction as the set.

Revision History

Ver.	Date	History	Contents	S.M. Rev. issued
1.0	2007.02	Official Release	—	—